

JVC

SERVICE MANUAL

MODEL

KD-A7 A/B/C/E/J/U

STEREO CASSETTE DECK



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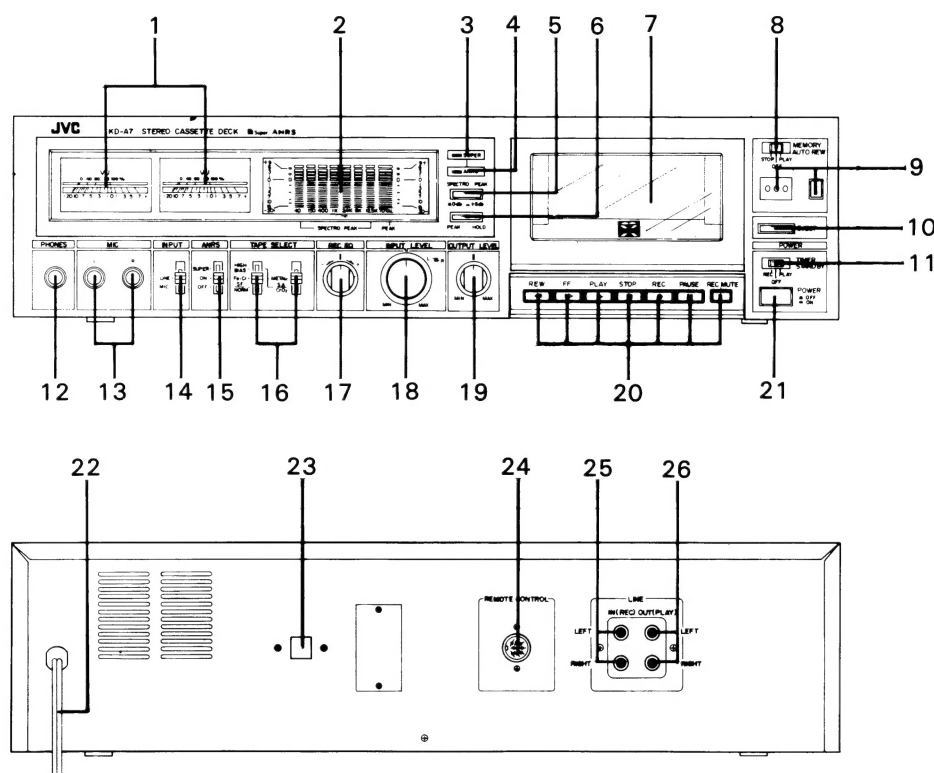
Specifications

| | | | |
|-------------------------------------|---|---|--|
| Type | : Stereo cassette deck | Heads | : 2 SA (Sen-Alloy) heads X-cut head for recording and playback 2-Gap head for erasing |
| Track system | : 4-track, 2-channel | Fast forward time | : 85 sec. with C-60 cassette |
| Tape speed | : 1-7/8 inch/sec. (4.8 cm/sec.) | Rewind time | : 85 sec. with C-60 cassette |
| Frequency response: | | Semiconductors | : 35 ICs, 46 transistors, 49 diodes, 8 zener diodes, 7 LEDs |
| OVU | | Input terminals | : Mic jack x 2, Max. sensitivity; 0.2mV (—72dBs) Matching impedance; 600Ω—10kΩ |
| Metal tape | : 25—12500Hz ± 3dB (Typical) | | Input jack x 2, Min. input level; 78mV (—20dBs) Input impedance; 100kΩ |
| SA/CrO ₂ tape | : 25—8000Hz ± 3dB (Typical) | Output terminals | : Output jack x 2, Output level; 0—300mV Output impedance; 5kΩ Matching impedance; 50kΩ or more |
| —20VU | | | Phones jack x 1, Output level; 0 ~ 0.5 mW/8Ω Matching impedance; 8Ω—1kΩ |
| Metal tape | *1 : 15—18000Hz 25—17000Hz ± 3dB (Typical) | Power requirement | : AC 120V, 60Hz (KD-A7C/J) AC 240/220/120V, 50/60Hz (KD-A7A/B/E) AC 240/220/120/100V, 50/60Hz (KD-A7U) |
| SA/CrO ₂ tape | *2 : 15—18000Hz 25—17000Hz ± 3dB (Typical) | Power consumption | : 34W |
| SF/Normal tape | *3 : 15—17000Hz 25—16000Hz ± 3dB (Typical) Surpasses DIN 45 500 | Dimensions | : 17-3/4" (450 mm) W 4-3/4" (120 mm) H 12-1/4" (311 mm) D |
| S/N ratio | : 60dB (from peak level, weighted, Metal tape) The S/N is improved by 5dB at 1kHz and by 10dB above 5kHz with ANRS on. (DIN 45 500 weighted) | Weight | : 18.3 lbs (8.3 kg) |
| Effect of Super ANRS | : (normal tape) | Note: | *1 ... SCOTCH METAFINE or Equivalent *2 ... TDK SA or Equivalent *3 ... MAXELL UD or Equivalent |
| Improvement of S/N | : the same as with ANRS | | |
| Improvement of frequency response : | OVU recording; 6dB at 10kHz + 5VU recording; 12dB at 10kHz | Design and specifications are subject to change without notice. | |
| Improvement of distortion : | OVU recording; 3% or less at 10kHz + 5VU recording; 3% or less at 10kHz | | |
| Wow and flutter | : 0.04% (WRMS), 0.14% (DIN 45 500) | | |
| Crosstalk | : 65dB (1kHz) | | |
| Harmonic distortion | : K3; 0.4%, THD; 1.0% (metal tape, 1kHz OVU) | | |
| Bias | : AC bias (85kHz) | | |
| Erase | : AC erasure (85kHz) | | |
| Motors | : FG type DC servo motor (for Capstan) DC motor (for Reel) | | |

Features

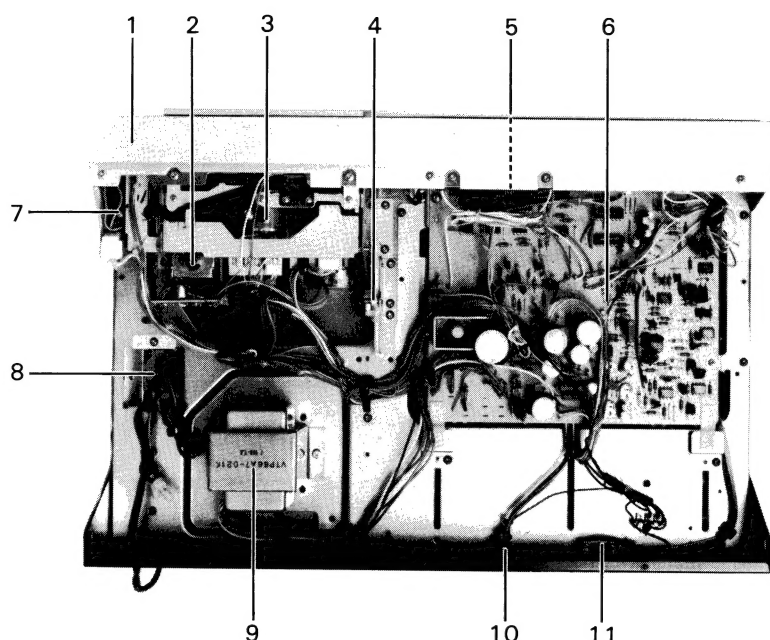
- SPECTRO PEAK level indicator incorporates fluorescent tubes, a PEAK HOLD switch and a SPECTRO PEAK sensitivity switch (0dB, +6dB).
- 4-position Tape Select Switches allow all kinds of tape, including the new Metal tape, to be used.
- X-cut SA (SEN-ALLOY) record/play head for improved frequency response, minimizing the contour effect.
- An SA erase head with high erase efficiency is used so that Metal Tape can be erased.
- 2-Motor, ID (Independent Drive) mechanism makes the wow and flutter a low 0.04% (WRMS).
- Self-illuminated buttons for full-logic control operation (excluding STOP and REC-MUTE modes).
- ANRS which lowers tape hiss noise so that it is inaudible and Super ANRS which improves linearity at high frequencies are incorporated.
- MEMORY/AUTO REW switch.
- Recording equalizer switch.
- Timer standby capability for automatic start of recording or playback using an AC timer.
- With the REC MUTE switch, you leave silent passages between program material.
- Geared and oil-damped cassette holder.
- Remote control terminal (for the optional remote control unit — R-30E).

Controls and Connections



- | | |
|--------------------------------------|---|
| 1. VU meters | 18. INPUT LEVEL control |
| 2. SPECTRO-PEAK level indicator | 19. OUTPUT LEVEL control |
| 3. SUPER ANRS indicator | 20. Cassette operation buttons |
| 4. ANRS indicator | ◀◀ REW (rewind) button |
| 5. SPECTRO-PEAK switch | ▶▶ FF (fast forward) button |
| 6. PEAK HOLD switch | ▶ PLAY button |
| 7. Cassette holder | ■ STOP button |
| 8. MEMORY/AUTO REW switch | ○ REC (record) button |
| 9. Tape counter/counter reset button | ⏸ PAUSE button |
| 10. EJECT button | REC MUTE button |
| 11. TIMER STANDBY switch | 21. POWER switch |
| 12. PHONES jack | 22. Power cord |
| 13. MIC jacks | 23. Voltage select switch (KD-A7 A/B/E/U) |
| 14. INPUT SELECT switch | 24. REMOTE CONTROL socket |
| 15. ANRS switch | 25. LINE IN (REC) terminals |
| 16. TAPE SELECT switches | 26. LINE OUT (PLAY) terminals |
| 17. REC EQ switch | |

Main Parts Location



- | | |
|--|--|
| 1. Front panel assembly | 7. Hall element P.W. board ass'y |
| 2. DC solenoid for playback | 8. Power switch |
| 3. Reel motor | 9. Power transformer |
| 4. Geared and oil-damped brake ass'y | 10. Remote control socket (DIN socket) |
| 5. Spectro peak level indicator | 11. Pin jacks |
| 6. Spectro peak level P.W. board ass'y | |

Mechanical parts are the same as location of model KD-A6.

Please refer to the service manual of KD-A6 A/B/C/E/J/U (No. 4179 — page 4).

Maintenance

To get long, trouble-free service, maintenance is important. Do not forget cleaning and demagnetizing.

Cleaning

After long, the heads and tape part — capstan, pinch roller, etc. — will become dirty with dust or magnetize particles. Dirty heads cause imperfect erasing or high frequency drop-off. A dirty capstan and pinch roller will cause unstable tape speed, leading to increased wow and flutter. Always keep them clean by following the procedure below.

1. Heads

- 1) Push the EJECT button to open the cassette holder.
- 2) Push up the transparent cover to remove it.
- 3) Use the head cleaning stick to wipe the surface where the tape comes into contact with the head.
(It is effective to moisten the cotton with alcohol.)

2. Pinch roller and capstan

Close the cassette holder with its transparent cover removed. Insert the cleaning stick into the hole on the right side at the bottom and clean the pinch roller and capstan.

3. Cleaning the cabinet and panel

Wipe the cabinet and panel clean with a soft cloth dipped in a neutral cleaner. Do not use thinner, benzene, alcohol or other strong solvents, as these will cause damage to the surface finish of the cabinet and panel.

Demagnetizing

The heads are made from a material resistant to magnetization, but after long use they may become magnetized. A magnet brought into their vicinity can magnetize the heads, causing excess noise. If noise seems to have increased, demagnetize the heads with a head demagnetizer through the following procedure.

1. Turn the POWER switch OFF.
2. Wrap the tip of the demagnetizer with vinyl tape or soft cloth so as not to damage the head surface. Switch on the demagnetizer and bring it close to the head.
3. Move the tip of the demagnetizer slowly first to the left and right, then up and down in front of head. Gradually move it away from the head and switch it off at a distance of more than 30cm (12").
4. The erase head need not be demagnetized. The capstan shaft and tape guide should be demagnetized in the same way as the record/playback head.

* Do not bring a magnetized metallic object (a screwdriver for example) near the head as this will increase noise.

Oiling

Feed one or two drops of machine oil to pinch roller shaft once or twice a year under normal conditions of use. Avoid oiling them excessively, or rotation may become irregular because of oil splashes.

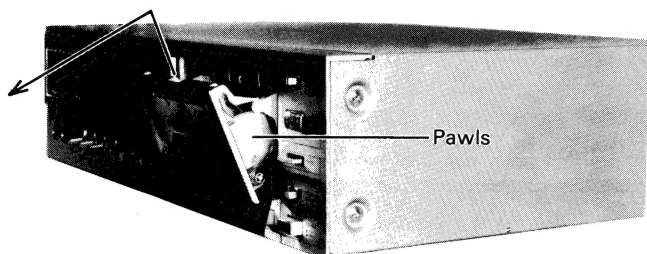
Removal of the Main Parts

This cassette deck which features a compact design and high performance uses miniature sized parts which are closely arranged. Take special care when servicing it.

Removal of the Enclosure assembly

1. Cassette door

Push the EJECT button to open the cassette door. Slide it upwards (approx. 5 mm) to unlock its pawls, and remove it to frontward.

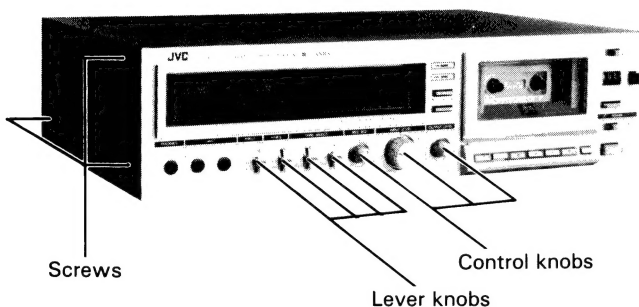


2. Lever knobs (INPUT, ANRS, TAPE SELECT) and control knobs (REC EQ, INPUT LEVEL, OUTPUT LEVEL)

Pull them to frontward.

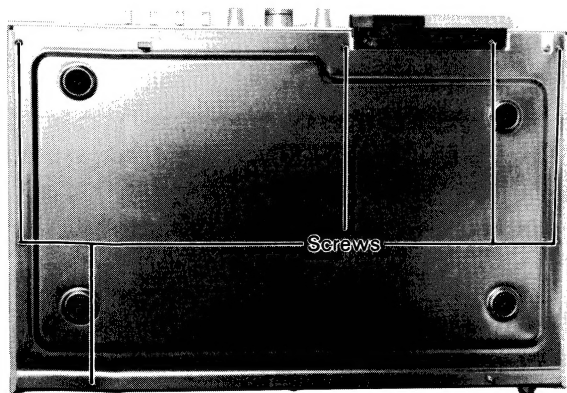
3. Top cover

Remove 6 screws fastening the top cover.



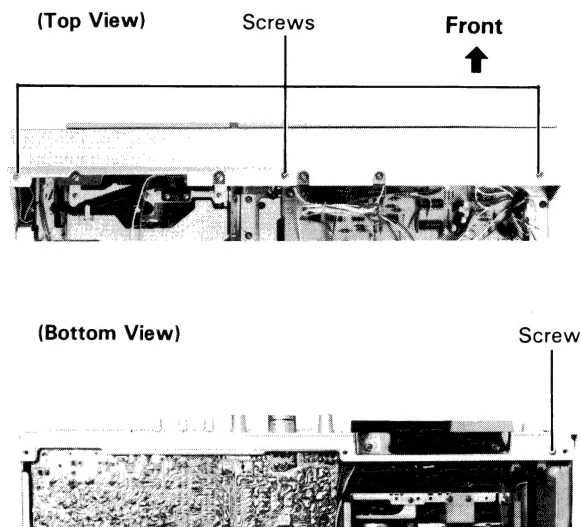
4. Bottom cover

Remove 7 screws fastening the bottom cover.



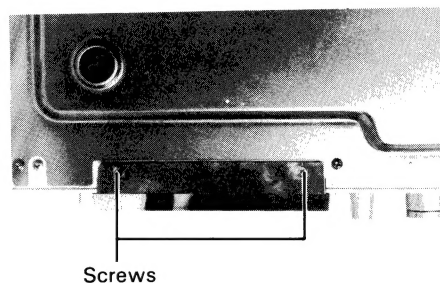
5. Front plate assembly

Remove 4 screws (3 screws on upper side and a screw on bottom side) fastening the front plate assembly.



6. When adjusting or replacing REC/PB head or Erase head

- 1) Remove the wires of the control switches from the wire clamp and a wire socket after having removed the top cover.
- 2) Remove 2 screws positioned below the control switches (on the bottom of the deck) and pull the control section forwards — no need of removing the front panel assembly.



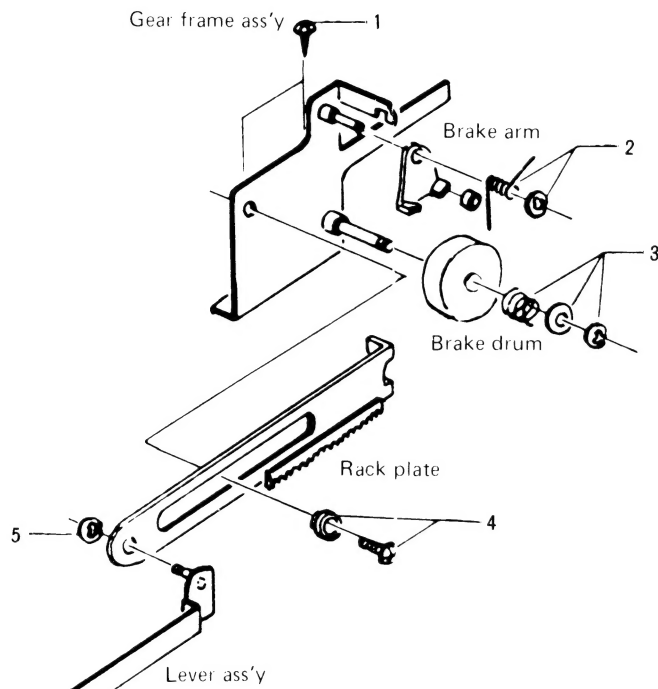
Caution:

When assembling the control switch assembly to the front panel, do in the order of the numbers as below as not to damage the front panel.

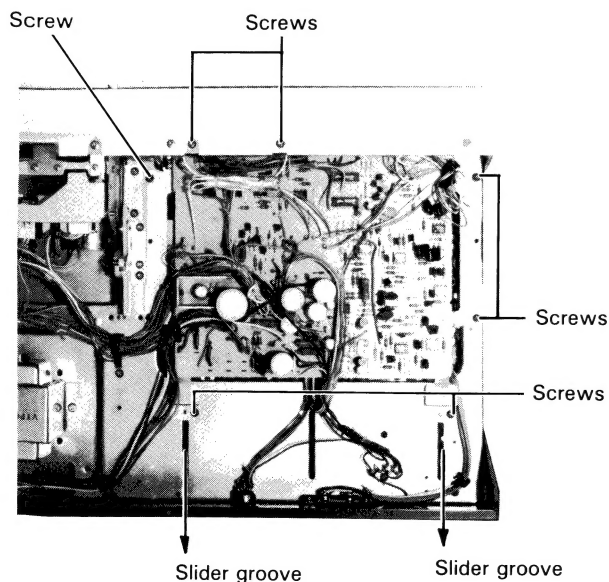
- 1 Wrap the sharp edges of the front panel with vinyl tape, etc.
- 2 Insert the control switch assembly in the front panel.
- 3 Remove the vinyl tape.
- 4 Fasten 2 screws for the control switch assembly.

7. Door brake and its related parts

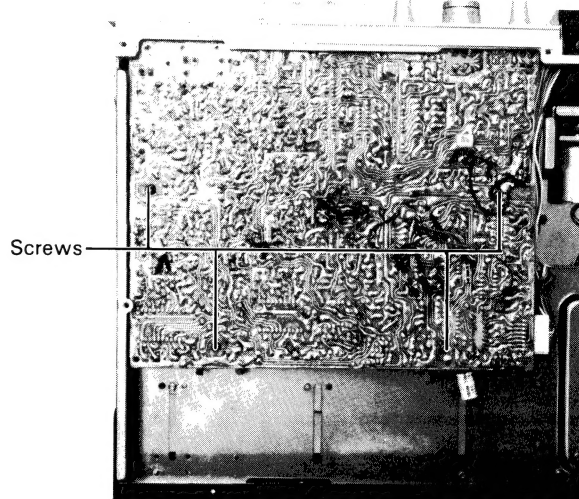
1. Gear frame ass'y Remove 2 screws ① .
2. Brake arm and tire Remove the E-ring and torsion spring ② .
3. Spur gear and brake drum Remove the E-ring and spring ③ .
4. Rack plate Remove the screw and the collar ④ .
5. Brake lever ass'y Remove the E-ring ⑤ .

**Removal of the Electrical Parts****8. Spectro peak indicator P.W.B ass'y**

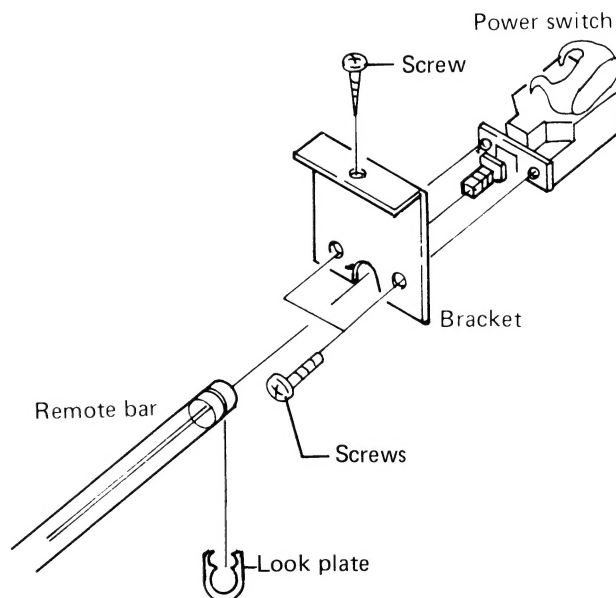
- 1) Remove 2 screws fastening the spectro peak indicator to the front plate.
- 2) Remove 5 screws fastening 4 P.W.B brackets.
- 3) Slide the spectro peak indicator P.W.B to rear side, and open it to upper side.

**9. Main amp P.W.B parts ass'y**

- 1) Remove 4 screws fastening the main amp P.W. Board (on the bottom side)
- 2) Remove 4 screws fastening the lever switches on the front bracket.
- 3) Remove 6 washers and 6 nuts fastening the PHONES, MIC-L, MIC-R jacks and REC EQ, INPUT LEVEL control, OUTPUT LEVEL control shafts.

(Bottom View)**10. Power switch**

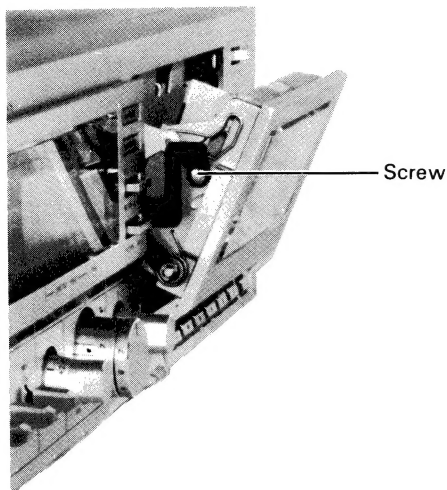
- 1) Remove a lock plate holding the remote bar.
- 2) Remove a screw fastening the power switch bracket.
- 3) Remove 2 screws fastening the power switch.

**11. Power transformer**

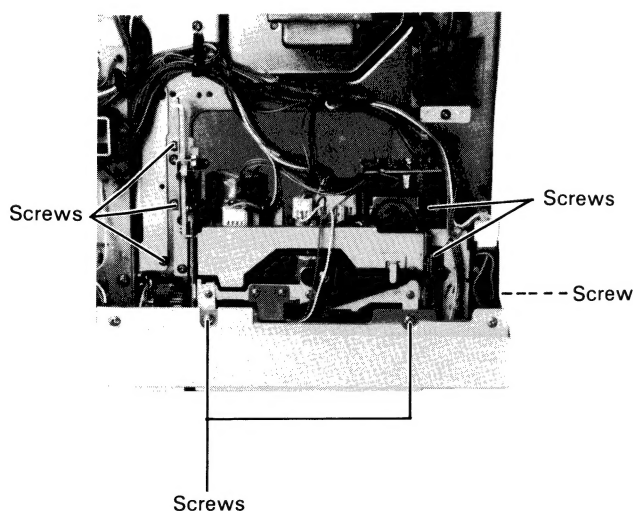
- Remove 2 screws and 2 washers fastening the power transformer.

Removal of the mechanical assembly

1. Remove a screw fastening the arm of gear-oil damper (Left side of the cassette holder).



2. Removes 5 screws fastening the mechanical bracket to the amp. chassis (Right-2 p.c.s, Left-3 p.c.s) after having removed the gear frame ass'y of door brake.
3. Remove a screw fastening the counter bracket to the right side the front bracket.
4. Remove 2 screws fastening the joint brackets to the front panel (upper side)



Removal of the mechanical parts.

1. REC/PB head
Remove the screw ① .
Remove the screw ② for head adjustment.
2. Erase head
Remove the screw ③ .
Remove the screw ④ for head adjustment.
3. Pinch roller arm ass'y Remove the E-ring ⑤ .
4. Supply reel disc Pull out the reel stopper ⑥ .
5. Take-up disc Pull out the reel stopper ⑦ .
Remove the counter belt.

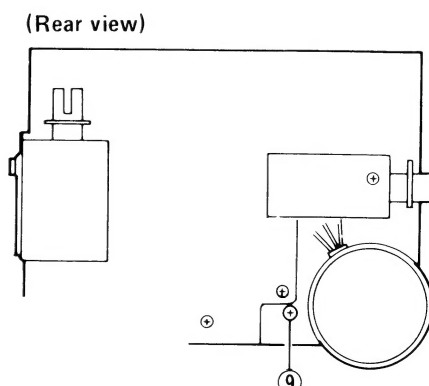
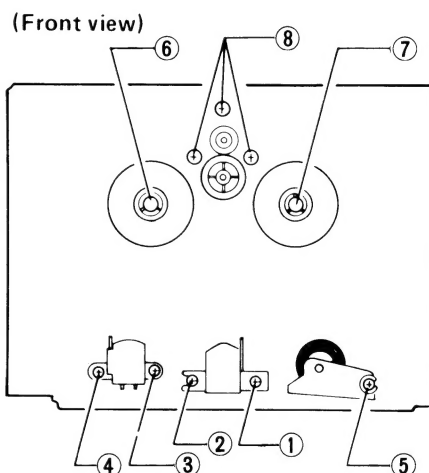
Note:

- 1) Remove the reel disc stoppers with a piece of sheet metal inserted between the reel disc and the stopper.
 - 2) Be careful not to stain the counter belt.
6. Reel motor Remove the 3 screws ⑧ fastening the reel motor.
 7. Capstan motor
1) Remove the screw ⑨ fastening the rubber stopper.
2) Remove its motor belt.
3) Turn the motor counter clockwise and pull it for removal.

Note:

When replacing the motor, check the following items.

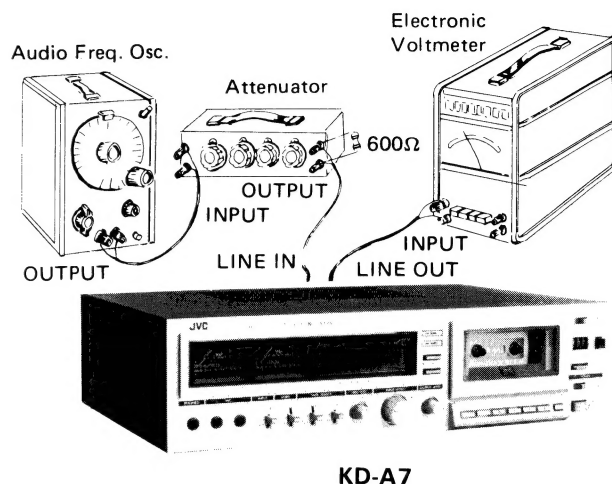
- 1) Is the motor placed in the correct position?
(Don't deflect the motor at mounting it.)
- 2) Does the capstan belt run in the center of the motor pulley?
- 3) Does the capstan belt run in the center of the flywheel?



Main Adjustments

[I] Equipment and measuring instruments used for adjustment

1. Electrical adjustment
 - 1) Electronic voltmeter
 - 2) Audio frequency oscillator
(range: 50—20kHz and output 0dB with impedance 600Ω)
 - 3) Attenuator
 - 4) Standard tapes for REC/PB
Maxell UD — SF tape
TDK SA — SA tape
SCOTCH METAFINE — Metal tape
} or equivalent
 - 5) Reference tapes for playback (JVC Test Tape)
VTT-658 (for head azimuth adj.)
VTT-656 (for motor speed, wow flutter adj.)
VTT-664 (for Reference level 1kHz)
TMT-6002N (for playback frequency response)
 - 6) Resistors
100Ω (for measurement of the bias current)
600Ω (for attenuator matching)
2. Mechanical adjustment
 - 1) Gauge for checking the head position.
 - 2) Torque gauge
 - 3) Blank tape (C-120) for tape running checker.



[II] Adjustment and repair of the mechanism

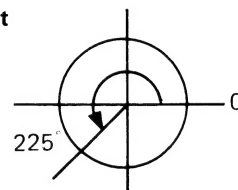
TROUBLESHOOTING HINTS

1. Azimuth adjustment and head replacement

- 1) Remove the wires of the control switches from the wire clamps after having removed the top cover.
- 2) Remove the two screws positioned below the control switches (on the bottom of the deck) and pull the control section forwards.
- 3) With the control section pulled out, azimuth adjustment and/or head replacement can be performed.
With the JVC cassette deck series of KD-A6, KD-A5 and KD-A8 models, the adjustment of replacement can be performed more easily than with conventional cassette decks which require removal of the entire mechanical section for the adjustments and/or replacements.

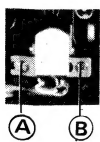
2. Tape-to-head contact adjustment



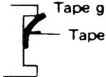
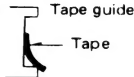
- 1) Turn the adjusting screw for aligning the erase head until it stops. Then, turn the screw in the reverse direction by 225° (a 5/8 revolution).



- 2) Check the tape-to-head contact using a C-120 tape having pads.
- 3) Check it again with a Metal tape.
Checking method:
Record a 400Hz or 1kHz signal with 0VU + 20dB. Erase the recording. Checking if the erasing is satisfactorily performed.
- 4) After adjustment, apply screw bond on the adjusting screw to prevent its loosening.

(Adjust the mechanism or confirm that it is in normal operating condition prior to the adjustment of the electrical circuit.)

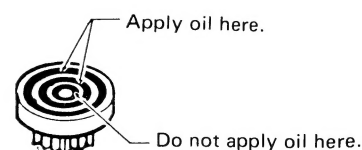
| Item | Adjustment | Adjusting point | Standard value | Remarks |
|--|--|-----------------|----------------|--|
| Adjusting record/playback head position  | <ol style="list-style-type: none"> 1. Connect an electronic voltmeter to the LINE OUT terminals. 2. Play back the VTT-658 test tape. 3. Adjust the head angle with the screw A until the reading of the electronic voltmeter becomes maximum for both channels. 4. After adjusting, set the screw with screw bond. | Screw A | Maximum | <p>If the head is worn, disconnected or exceedingly magnetized so as not to provide the necessary characteristics, replace it with a new one.</p> <p>After replacement, the head position adjustment as well as the playback level adjustment, the bias current adjustment and the recording level adjustment are all necessary.</p> |

| Item | Adjustment | Adjusting point | Standard value | Remarks |
|--|---|--|--------------------|---|
| Adjusting erase head height  | Employ a special cassette (C-120) from which parts of the casing, where the erase head, record/playback head and capstan engage, has been cut away. Perform tape transport with the cassette tape. Adjust the screw C until the tape runs in the center of the erase head tape guide. (See "Troubleshooting hints" afore-said.) <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> Correct  </div> <div style="text-align: center;"> Incorrect  </div> <div style="text-align: center;">  </div> </div> | Screw C | | If the output difference between the left and right channels exceeds 3–4dB, the head is defective. Replace it with a new one. Be sure to perform this adjustment after replacing the erase head. |
| Adjusting motor speed | Connect a speed meter to the LINE OUT terminals. Play back the VTT-656 test tape. Adjust the semi-fixed resistor on the motor circuit board until the reading of the speed meter is 3000Hz. | Semi-fixed resistor on the motor circuit board | 3000Hz | If the speed meter functions as a wow and flutter meter, also, connect the deck to the INPUT terminals of the meter. |
| Checking play-back torque | Employ a torque testing cassette tape for the checking, or remove the cassette cover and use a torque gauge. | | 40–70 gr-cm | If the standard torque is not obtained, replace the take-up disc assembly. |
| Checking fast forward torque | Measure the torque in the fast forward mode in the same manner as in the above. | | More than 70 gr-cm | If the standard torque is not obtained, perform the following. 1. Clean the capstan belt, the idler circumference, the motor pulley, the take-up reel disc circumference, the flywheel circumference, etc. 2. Replace the belt and idler. |
| Checking re-wind torque | Measure the torque in the rewind mode in the same manner as in the above. | | More than 70 gr-cm | If the standard torque is not obtained, clean the capstan belt, idler, motor pulley, flywheel circumference, rewinding idler circumference, left reel disc circumference, etc. |
| Checking wow and flutter | Connect a wow and flutter meter to the LINE OUT terminals. Play back the VTT-656 test tape. Check to see if the reading of the meter is within 0.04% (WRMS). | | | If the reading becomes moving value even if conforming to the standard, a re-claim may be raised. Repairs are necessary. |

Damping gear oil

Oil employed — Torque grease specified by JVC (KANTO KASEI GP-608)

Applying method — Apply in both concaved sections as shown in the figure.



[III] Repair of wow flutter

If wow and flutter increase, check the following points.
If there is defect in revolving parts, the wow and flutter generated will increase in proportion to the number of revolutions.

Play a 3000Hz test tape, and defective part can be detected from the sound.

| Section | Trouble | Repair |
|----------------------|--|---|
| Capstan and flywheel | Capstan shaft has excessive run-out Flywheel turns heavily. (shaft seizure, thrust play, etc.) | Replace flywheel. Clean the capstan shaft and the groove in the flywheel. Apply oil to the metal position. Replace the capstan assembly. |
| Pinch roller | Rough rotation (Deformation scratches, or dust) The angular position of the pinch roller is not correct. The pinch roller pressure is not correct. | Replace pinch roller, or pinch roller spring. Clean the pinch roller or apply oil to the rotary shaft. Adjust the pinch roller so that it is parallel with the capstan shaft. Replace the pinch roller spring. |
| Belt | Belt has undue run-out. Belt is dirty or slippery. | Clean the belt. Replace the belt. |
| Back tension | Back tension is irregular, or back tension is too strong. | Replace back tension spring (under supply disc). |
| Motor | Motor shaft has undue run-out. Motor pulley is oily and dusty. | Replace motor. Clean motor pulley. |

[IV] Electrical circuit adjustment procedure

In the steps marked by an asterisk (*), adjustment should be performed, however, only checking is sufficient with steps other than those.

Adjustment should be performed in the order of steps 1, 2, 3,

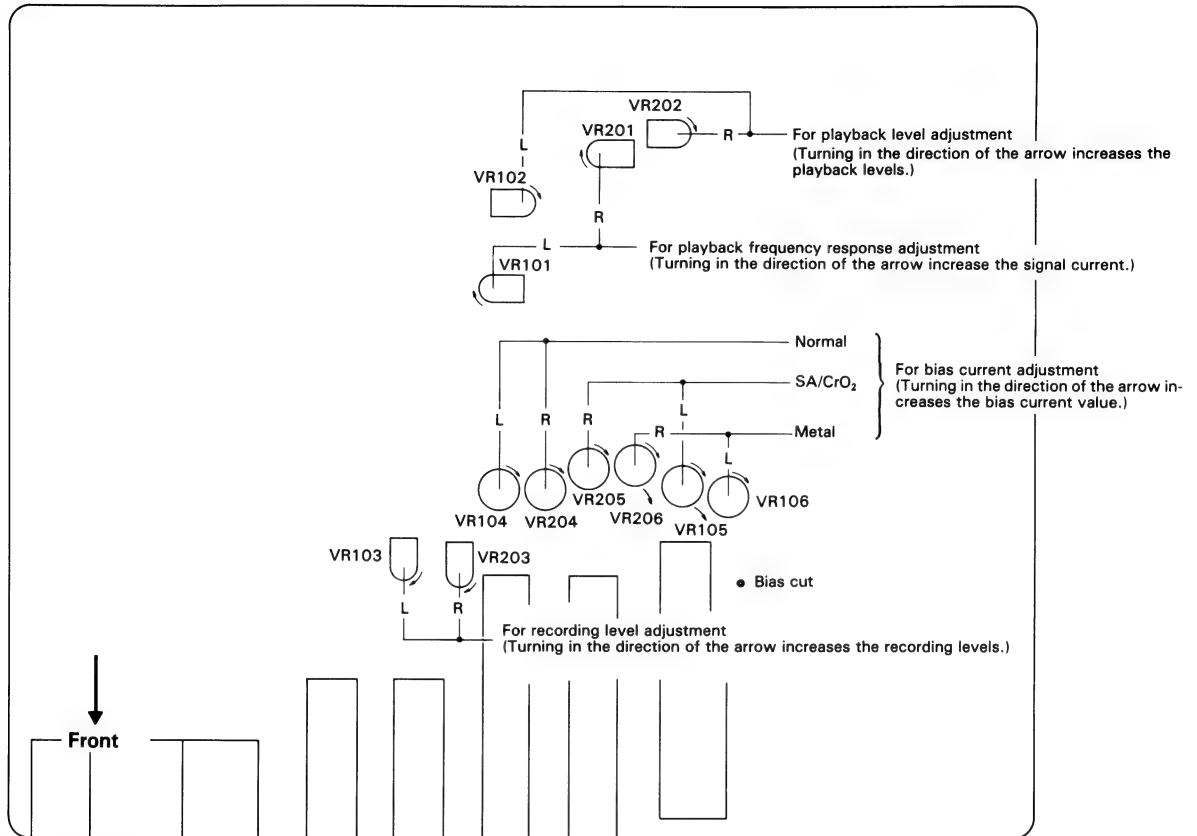
| Step | Item | Adjustment | Adjusting point | Standard value | Remarks |
|------|---|--|-----------------|-----------------|---|
| 1 * | Adjusting playback level | 1. Playback the VTT-664 Reference tape (1kHz) with the tape select switch set to the NORMAL position. 2. Adjust VR102 and VR202 until the LINE OUT becomes about -8dBs. | VR102 202 | -8dBs (0.3V) | 1. This adjustment becomes necessary when a change in playback level results (for example, due to head replacement). 2. Perform this adjustment with the ANRS switch set to OFF. |
| 2 * | Playback frequency response | Playback test tape TMT-6002N for following adjustment. 1) Adjust VR101. 201 so that 10kHz signal and 1kHz signal gains become flat response. | VR101 201 | | |
| 3 * | Adjusting FL (Fluorescent tube) indicator sensitivity | 1. Set the cassette deck to its recording mode. 2. Apply a 1kHz, approx. -10dBs signal to the LINE IN terminals. 3. Adjust the recording level controls until the signal is available at -8dBs at the LINE OUT terminals. 4. Adjust VR302 and VR402 until the Total Peak indicator become to 0dB. | VR302 402 | OVU | Perform the adjustment when the parts are replaced. |

| Step | Item | Adjustment | Adjusting point | Standard value | Remarks |
|------|--|---|--|--|--|
| 4 * | Adjusting VU meter sensitivity | <ol style="list-style-type: none"> 1. Set the cassette deck to its recording mode. 2. Apply a 1kHz, approx. -10dBs signal to the LINE IN terminals. 3. Adjust the recording level controls until the signal is available at -8dBs at the LINE OUT terminals. 4. Adjust VR301 and VR401 until the VU meters deflect to 0. | VR301 401 | 0VU | |
| 5 * | Checking record/-playback frequency response | <p>Record 1kHz, 50Hz and 12.5kHz signals at an input level of 0VU to -20dB. Play back the tape. Check to see that the 50Hz and 12.5kHz signal output deviations fall within the standard range, using the 1kHz signal output as a reference. (It is basically desirable that the 1kHz, 50Hz and 12.5kHz signal outputs are the same.</p> | <p>For normal tape: VR104 204</p> <p>For chrome tape: VR105 205</p> <p>For Metal tape: VR106 206</p> | <p>Reference frequency; 1kHz</p> <p>0 ± 3dB at 50Hz 0 ± 3dB at 12.5kHz</p> | This checking should be performed for normal, chrome and metal tapes and for both right and left channels. |
| 6 * | Checking recording bias current | <p>Record 1kHz, 50Hz and 12.5kHz signals at an input level of 0VU to -20dB. Play back the tape. Adjust VR104 and VR204 (for a normal tape), VR105 and VR205 (for chrome tape), VR106 and VR206 (for a metal tape) until the indicated deviation of the 10kHz signal output from the 1kHz signal output becomes 0. As no bias current at REC-PAUSE mode, must check recording bias current at REC-PLAY mode.</p> | | Output deviation; 0 | <ol style="list-style-type: none"> 1. Bias current adjustment for a cassette deck should generally be performed referring to the record/playback frequency response. This is because the frequency response of a cassette deck depends more greatly upon the bias current than does that of an open reel deck. The current measuring method described below is an alternative one. 2. If the bias current is not properly adjusted, the record and playback characteristics become as shown below. |
| | | <p>Response (dB)</p> <p>Frequency (Hz)</p> <p>50Hz 1kHz 12.5kHz</p> <p>Increase in high frequencies (with a small bias current)</p> <p>Optimum level</p> <p>Decrease in high frequencies (with a larger bias current)</p> | | | |
| | | <p>Alternative method</p> <ol style="list-style-type: none"> 1. Set the deck to its recording mode. 2. Connect a 100Ω resistor to the grounding terminal (+ terminal in playback) and the lead wire of the head as shown below. 3. Measure voltage at both ends of the resistor with electronic voltmeter. <p>REC/PB Head Electronic Voltmeter</p> <p>100Ω</p> <p>E INPUT</p> | <p>Reference value</p> <p>With normal tape; 30mV</p> <p>With chrome tape; 42mV</p> <p>With metal tape; 65mV</p> | | <ol style="list-style-type: none"> 1. In order to distinguish the - terminal of the head from its + terminal, touch the terminals with a finger while the deck is in the playback mode. The VU indicator light when the - terminal during recording is touched. (For a record/playback head, the polarity is reversed according to whether recording or playback.) 2. Be sure to employ a shielded wire. |

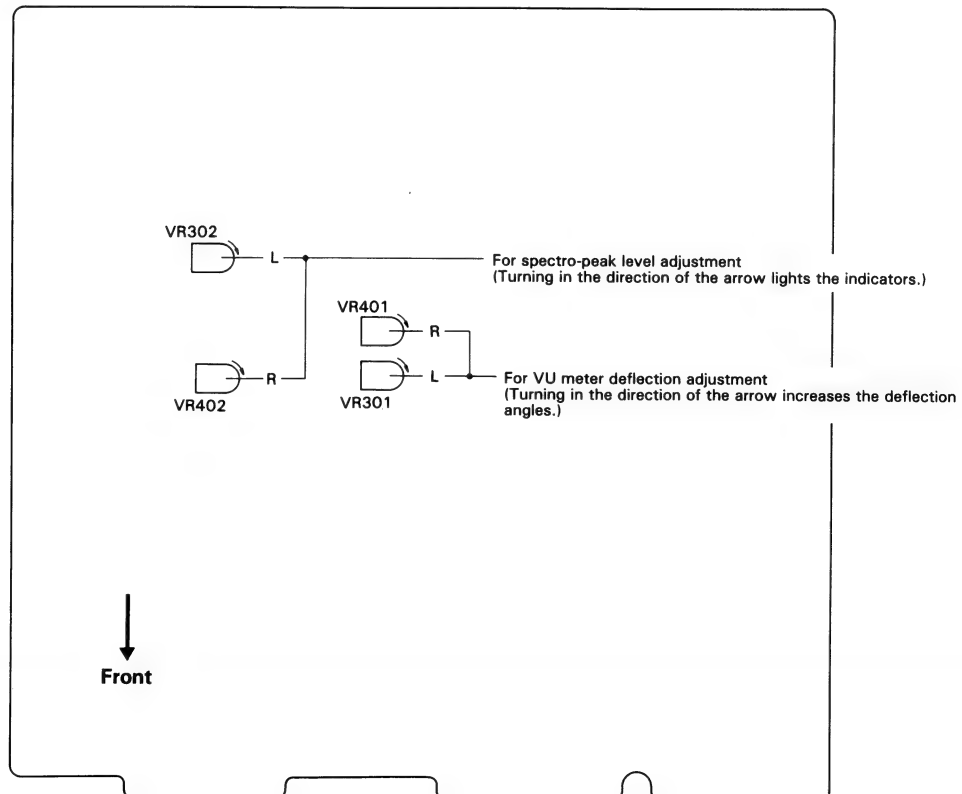
| Step | Item | Adjustment | Adjusting point | Standard value | Remarks |
|------|--|--|-----------------|--|--|
| 7 | Adjusting recording level | <ol style="list-style-type: none"> 1. Apply a 1kHz, approx. -10dB signal to the LINE IN terminals. Adjust the recording level controls until the signal is available at -8dBs at the LINE OUT terminals. 2. After checking to see if the VU indicator become to 0, record the signal applied to both left and right channels using normal tape. 3. Play back the recording part. Perform the recording signal adjustment with VR103 and VR203 so that the VU indicator become to 0. | VR103 203 | 0VU | The level difference between left and right channels for normal tape, chrome tape and metal tape should be less than 1dB (1VU). Perform the adjustment using a normal tape, level difference between recording and playback for CrO ₂ and metal tapes should be less than 1.5dB, and that between left and right channels should also be less than 1dB. |
| 8 | Checking record/-playback signal distortion | <ol style="list-style-type: none"> 1. Record a 1kHz, -8dBs signal to LINE IN terminals and perform recording with the VU indicator become to 0. 2. Play back the recorded part. Check the output with a distortion meter to see if the value conforms to the standard value. | | Normal tape; Less than 1.2% | Be sure to perform this adjustment following bias current and recording level adjustments. |
| 9 | Checking signal to noise ratio in recording/playback | <ol style="list-style-type: none"> 1. Record a 1kHz, 0VU signal. Stop the input by disconnecting from the terminal to perform non-signal recording. 2. Play back the recorded part. Measure the 0VU recording output and the non-signal recording output for comparison using an electronic voltmeter. Check to see if the value conforms to the standard value. | | Normal tape; More than 42dB Chrome tape; More than 42dB | Apply an output (-72dBs) to the MIC terminals with the recording level controls set to maximum so that the VU indicator become to 0. |
| 10 | Checking erasing coefficient | <ol style="list-style-type: none"> 1. Apply a 1kHz signal to the LINE IN terminals. Adjust the recording level controls until the VU indicator become to 0. 2. Perform recording with the signal enhanced by 20dB. 3. Erase a part of the recording. 4. Measure the output difference between the erased part and non-erased part to compare with an electronic voltmeter. | | More than 65dB | <p>For the measuring, connect a band pass filter between the deck and the electronic voltmeter.</p> <pre> graph LR Input["Input (1kHz 0VU + 20dB)"] --> TapeDeck["Tape deck (recording, erasing)"] TapeDeck --> BandPassFilter["Band pass filter"] BandPassFilter --> Voltmeter["Electronic voltmeter"] </pre> |

[V] Adjustment Location of Electrical Circuit

Main P.W. Board

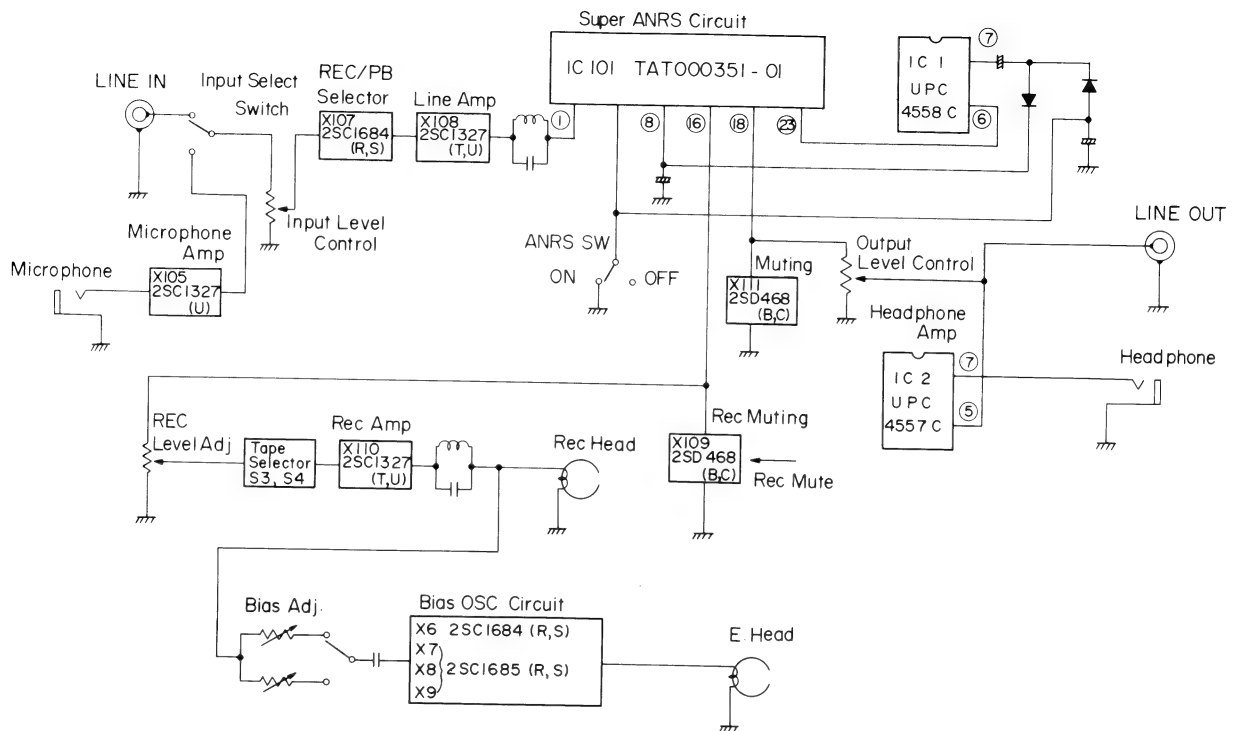


Spectro-peak P.W. Board

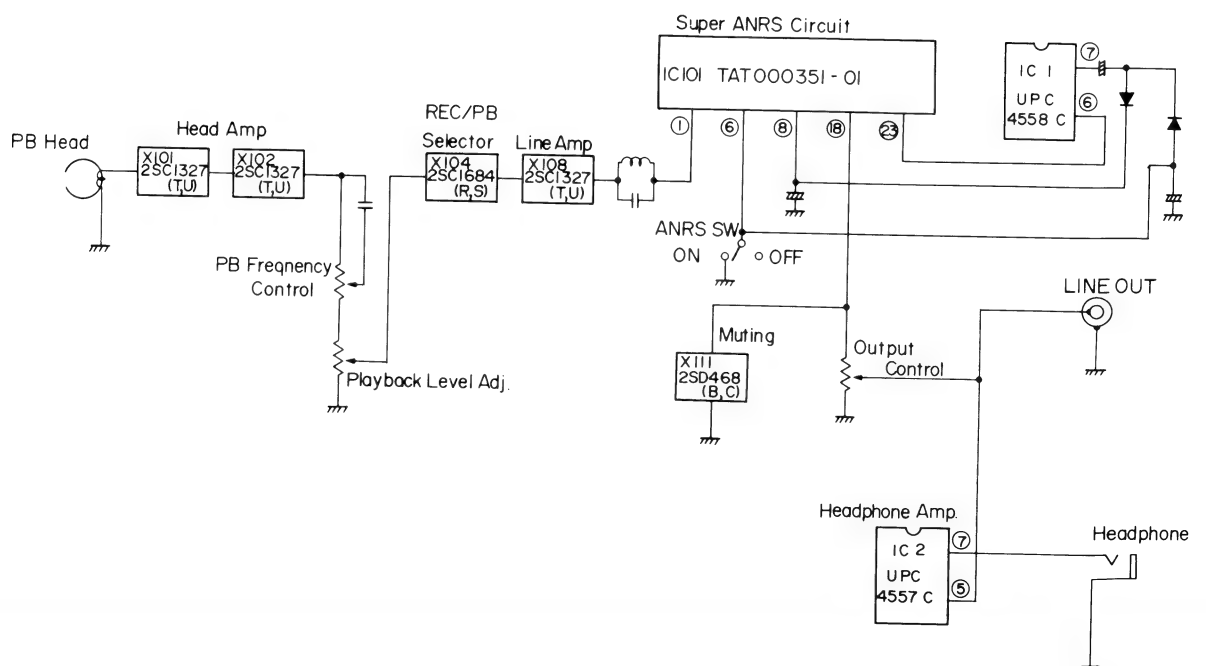


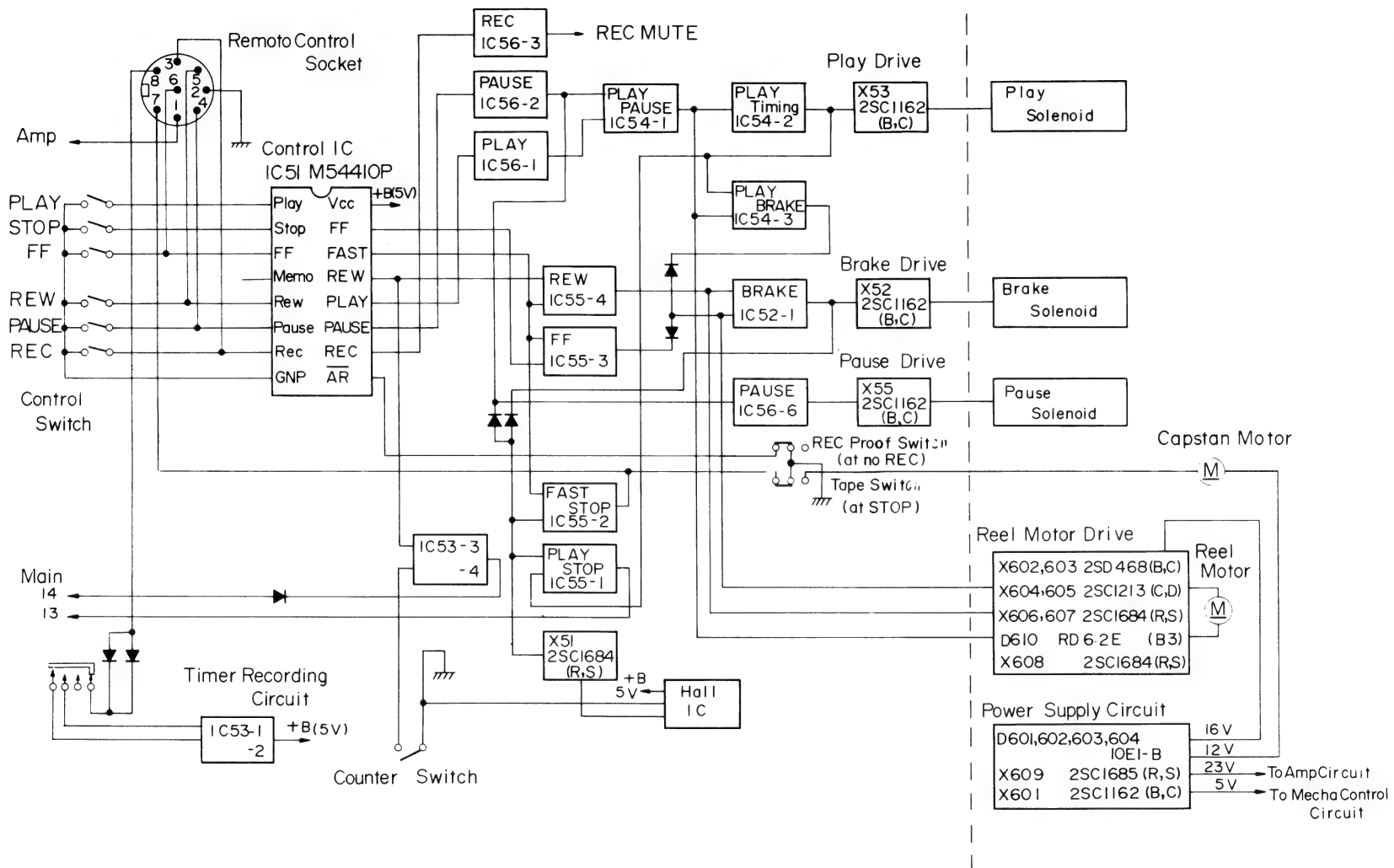
Block diagram

Recording System

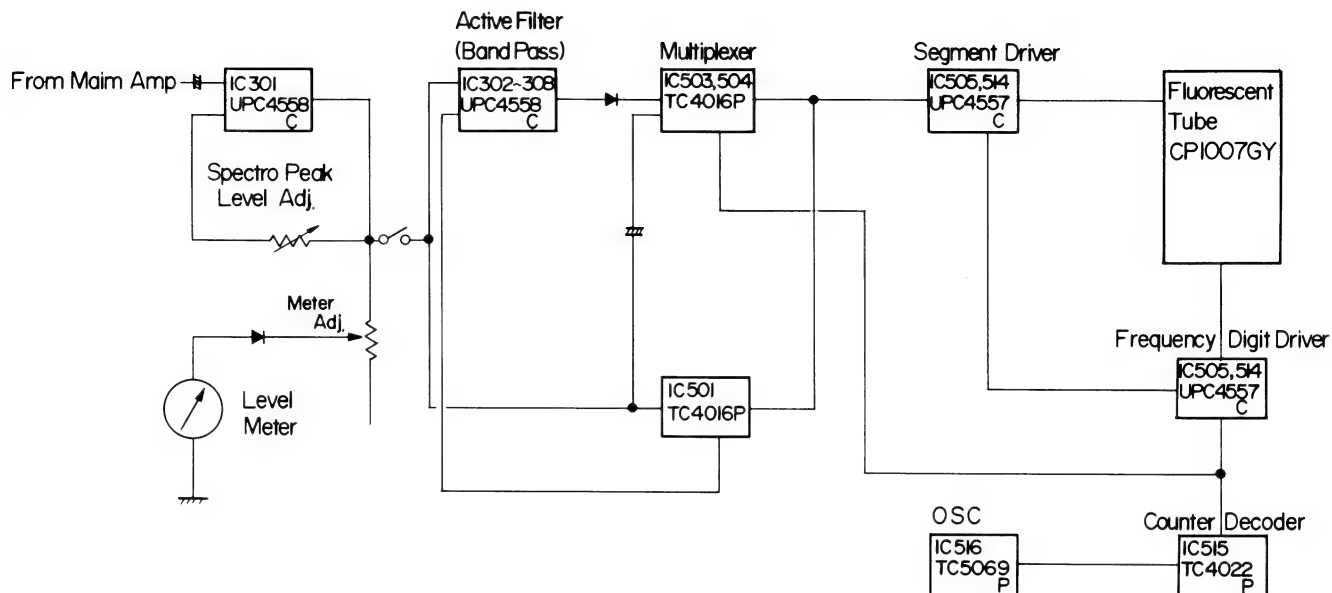


Playback System





Spectro-peak level Circuit



Integrant Circuit

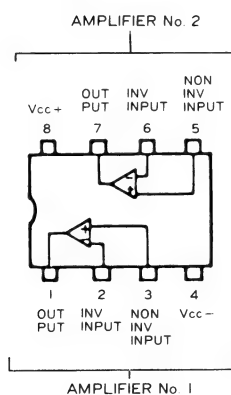
IC101,201 TAT000351-01 Super ANRS Circuit

(Top View)

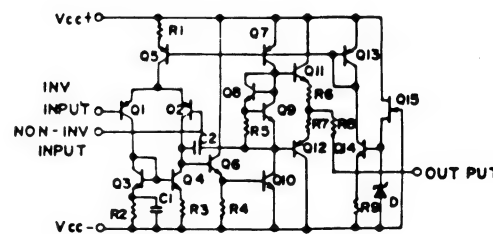


| | | |
|-------------|----------|--------------------|
| IC1 | UPC4558C | ANRS Control Amp. |
| IC301 | " | Spectro-peak level |
| IC302 ~ 308 | " | Active filter |
| IC502 | " | Segment driver |

(Top view)



Equivalent circuit (1/2)



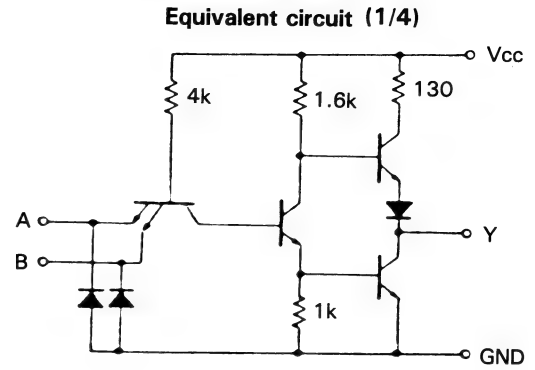
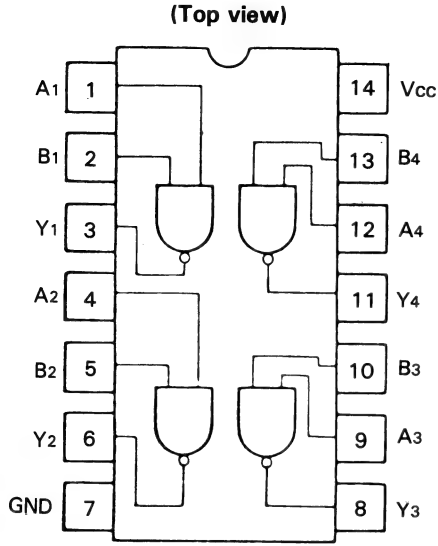
| | | |
|-----------|----------|----------------|
| IC2 | UPC4557C | Headphone Amp. |
| IC505,514 | " | Segment driver |

Top view is the same as UPC4558C.
Equivalent circuit is the same as UPC4558C except R8 only.

| | | |
|------|---------|----------------|
| IC51 | M54410P | Mecha. Control |
|------|---------|----------------|

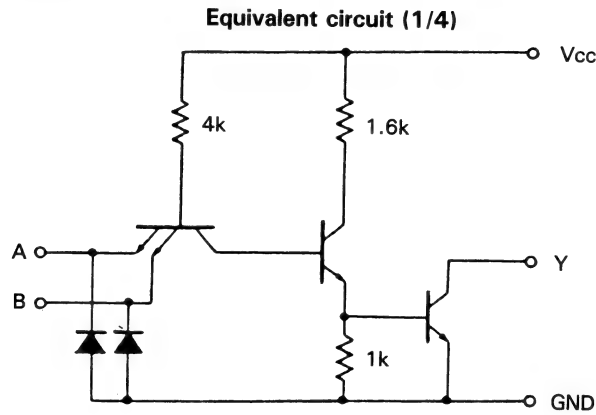
See the service manual of KD-85 A/B/C/E/J/U
(No. 4165 — page 7.)

IC52,53,54 HD7400

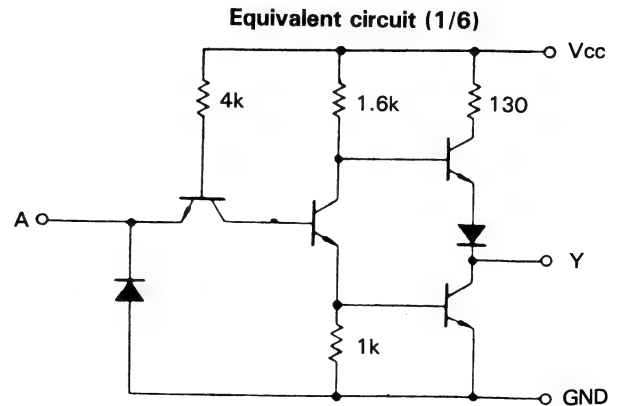
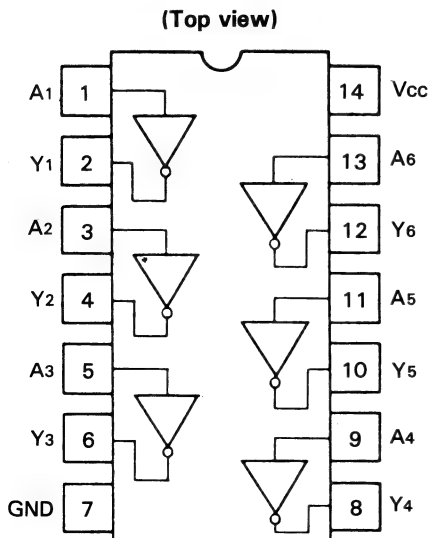


IC55 HD7403

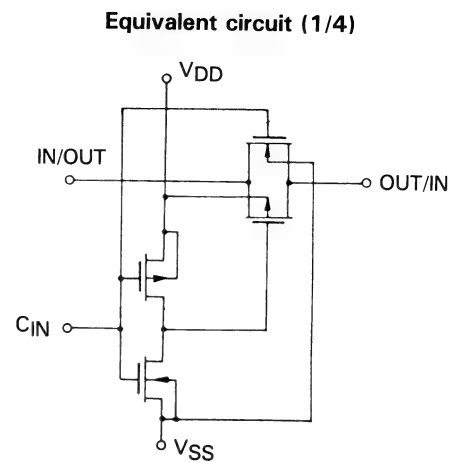
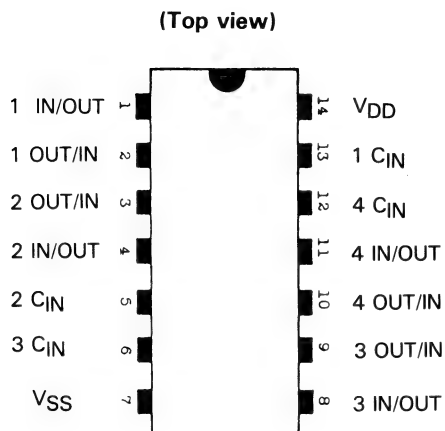
Top view is the same as HD7400.



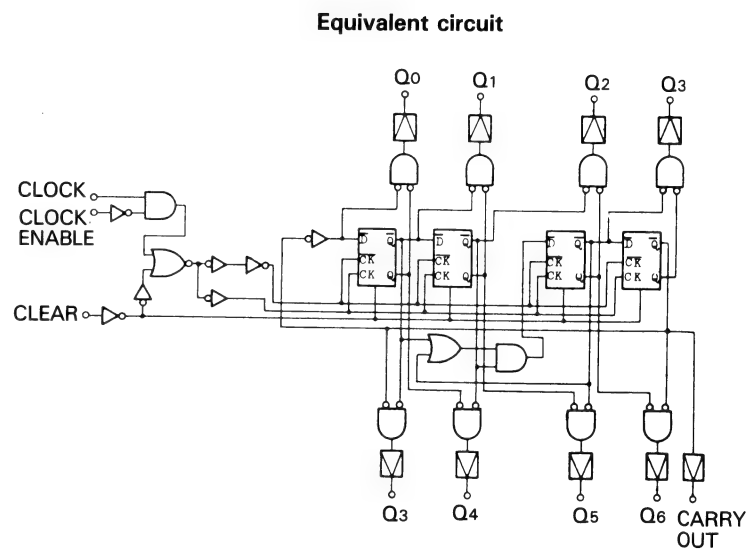
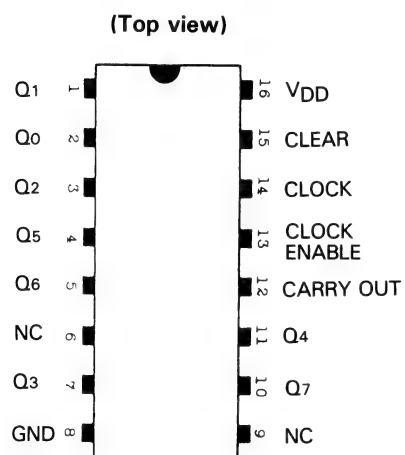
IC56 HD7404



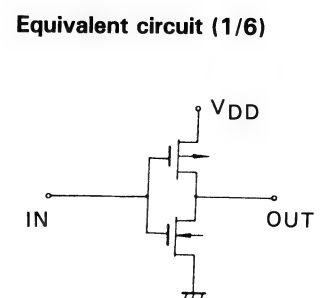
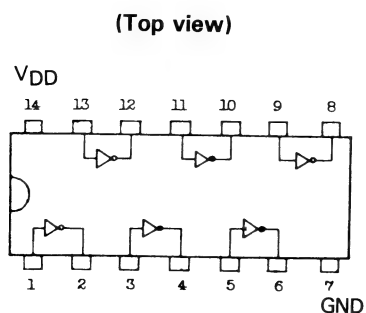
IC501,503,504 TC4016P Multiplexer Circuit



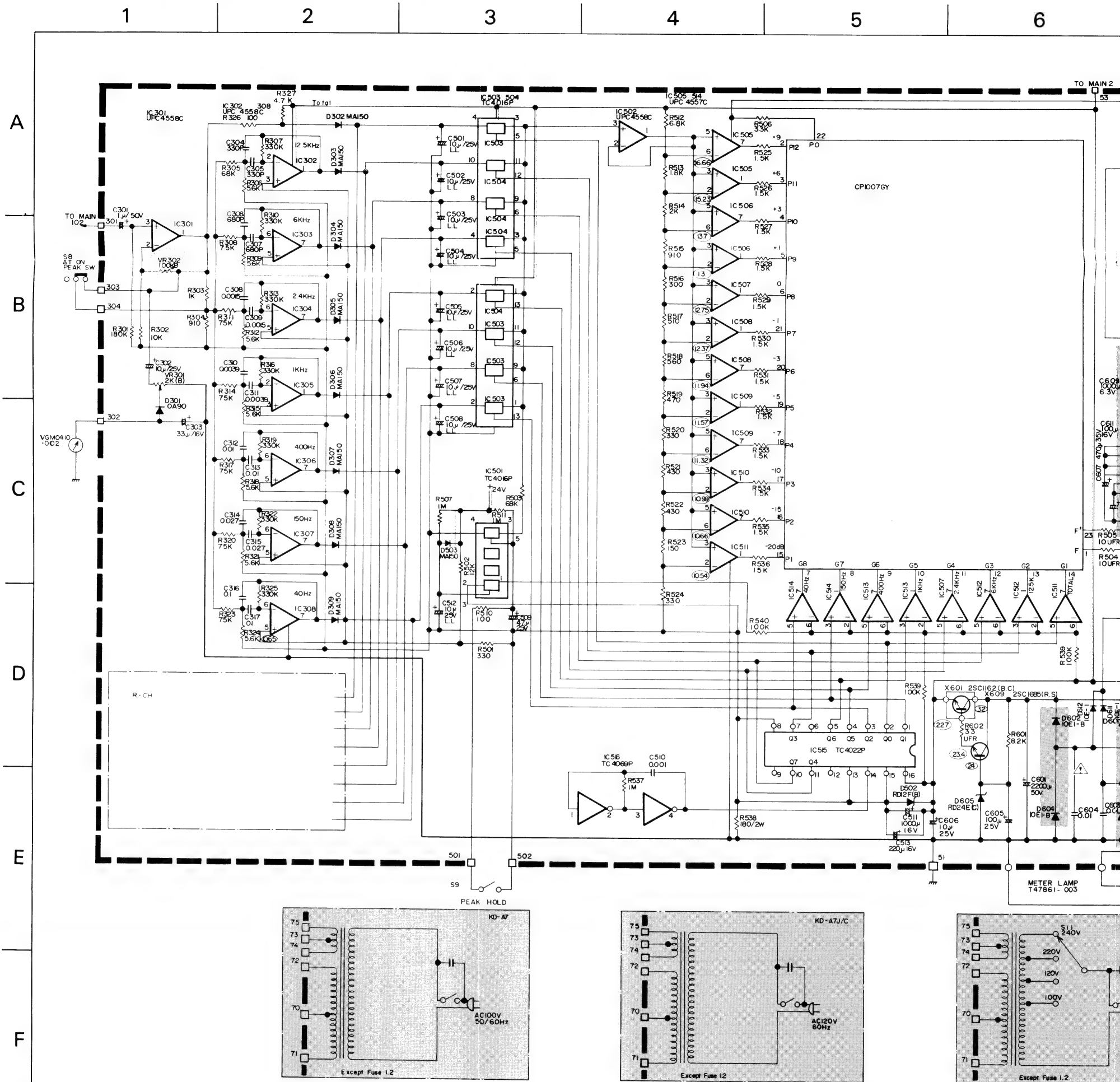
| | | |
|-------|---------|-----------------|
| IC515 | TC4022P | Counter Decoder |
|-------|---------|-----------------|



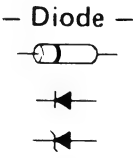
| | | |
|-------|--------|-------------|
| IC516 | TC4069 | OSC Circuit |
|-------|--------|-------------|

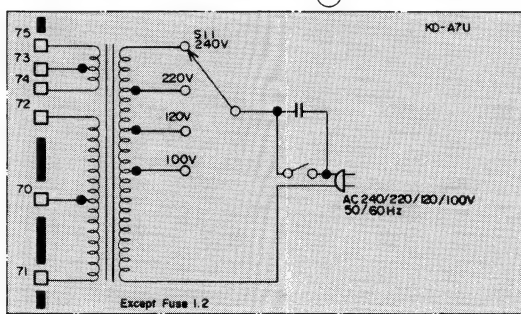
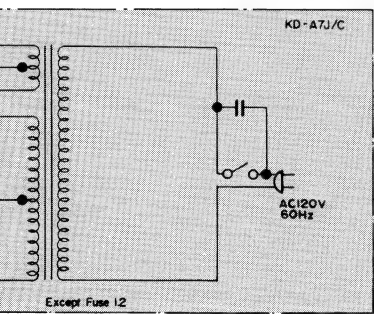
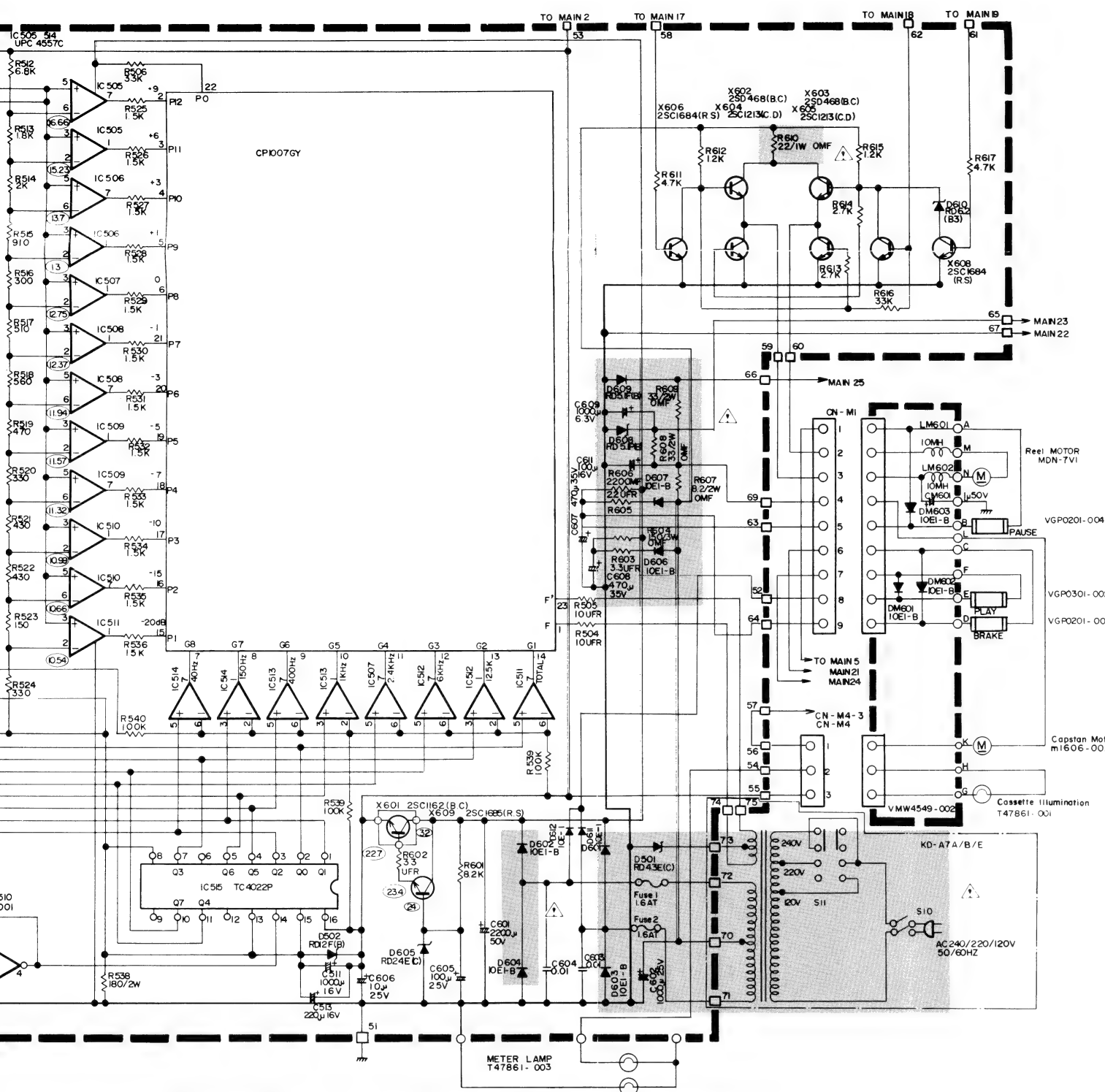


Standard Schematic Diagram of KD-A7 (Spectro-peak level circuit)



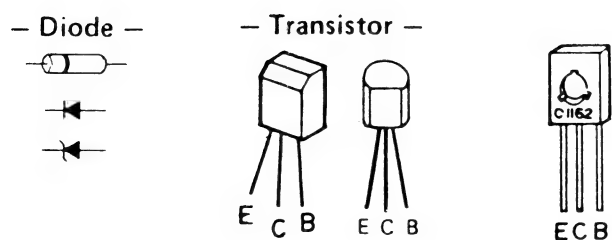
- NOTES:**
1. All voltages are measured by Electronic Voltmeter.
Unless otherwise specified, all resistors are 1/4W, $\pm 5\%$ carbon resistors.
And all capacitors are 50V fixed ceramic capacitors or 50V mylar capacitors.
 2. UF — Unflamable carbon resistor
MF — Metal film resistor
OMF — Oxided metal film resistor
Ta — Tantalum solid electrolytic capacitor
LL — +20% low leak current electrolytic capacitor
 3. Red lines show +B circuits.
 4. parts are safety assurance parts. When replacing those parts, make sure to use the specified one.
- | | |
|---------------------------------|---|
| PP — Polypropylene capacitor | NP — Non-polarized electrolytic capacitor |
| PS — Polystyrene capacitor | |
| MM — Metallized mylar capacitor | |





polypropylene capacitor
polyester capacitor
polyester mylar capacitor
polarized electrolytic capacitor

Make sure to use the specified one.



| | E | C | B |
|------|---------------------------------------|--|---------------------------------------|
| X601 | 22.7 | 32.0 | 23.3 |
| X602 | STOP & REW 0 PLAY 5.8 FF 8.7 | 12.8 | STOP & REW 0 PLAY 6.4 FF 9.3 |
| X603 | FF 8.6 PLAY & PAUSE 5.6 Other 0 | 12.0 | FF 9.2 PLAY & PAUSE 6.3 Other 0 |
| X604 | 0 | REW 8.5 Other 0 | FF, PLAY 0.7 Other 0 |
| X605 | 0 | FF 8.6 PLAY or PAUSE 5.6 Other 0 | REW 0.75 Other 0 |
| X606 | 0 | 0 | 0 |
| X607 | 0 | FF 9.2 PLAY 6.3 Other 0 | REW, STOP or PAUSE 0.7 Other 0 |
| X608 | 0 | FF 4.5 Other 0 | PLAY or PAUSE 0.6 Other 0 |
| X609 | 23.4 | 32.0 | 24.0 |

Standard Schematic Diagram of KD-A7 (Amplifier Circuit)

A

B

C

D

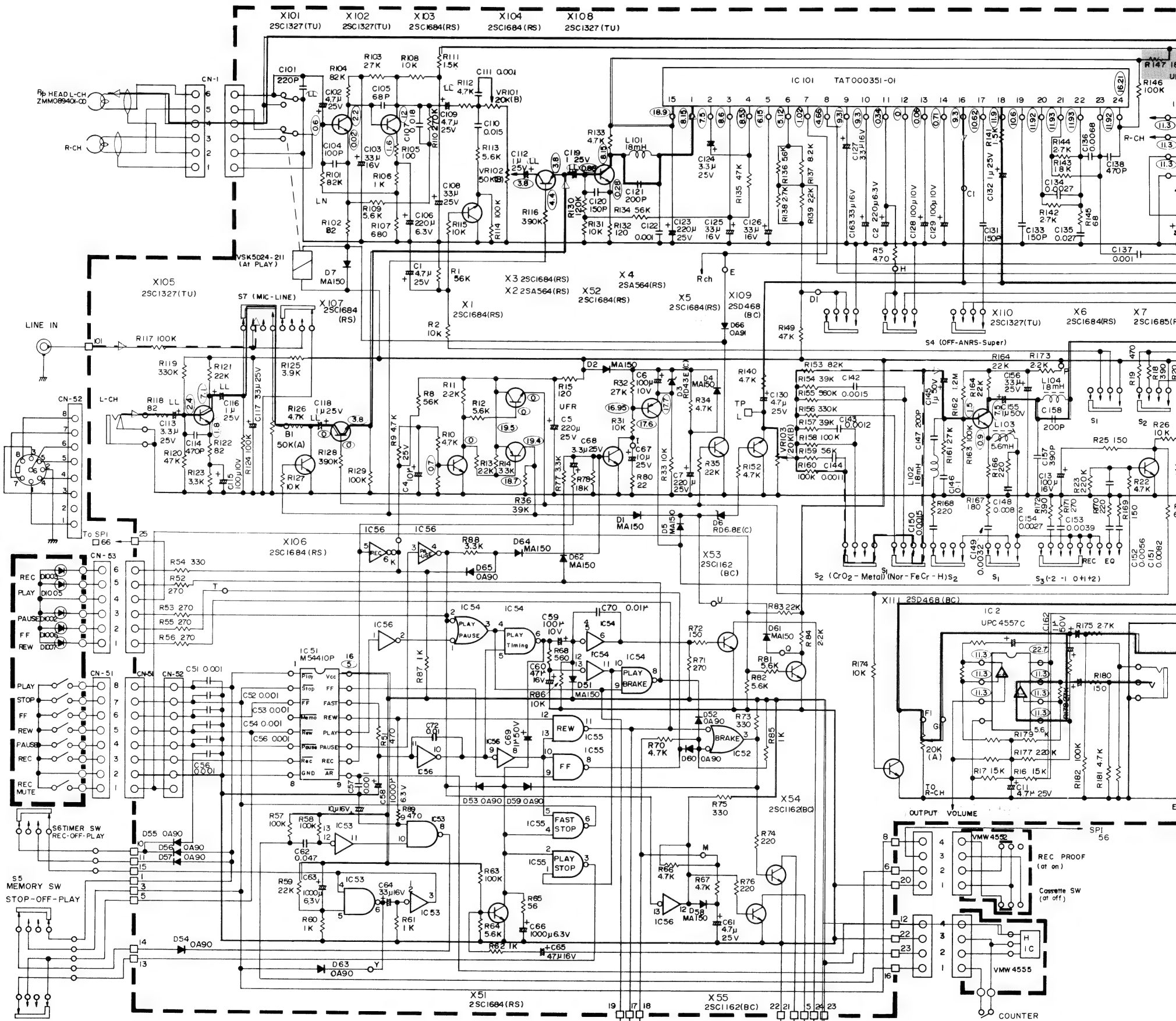
E

F

G












| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|-----------|------|------|------|------|------|------|------|------|------|------|------|----|------|------|-------|------|-------|------|-------|-------|------|-------|------|------|
| IC101,201 | 8.36 | 7.66 | 8.51 | 8.46 | 6.02 | 5.19 | 1.04 | 4.72 | 9.19 | 9.17 | 0.35 | 0 | 0.06 | 0.71 | 18.75 | 9.21 | 10.52 | 9.24 | 10.55 | 11.79 | 11.8 | 11.81 | 11.8 | 16.5 |

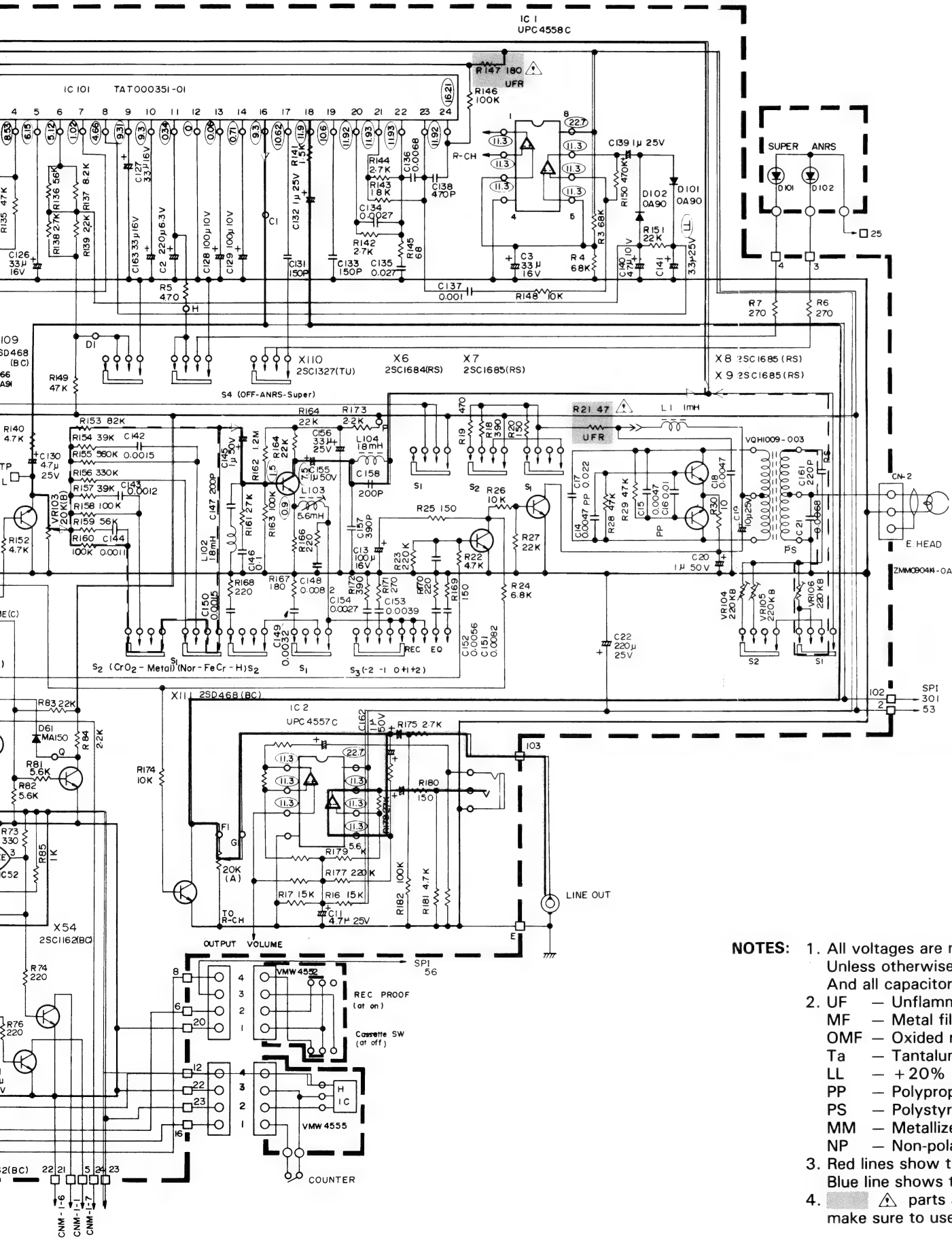
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|------|-------|------------------|------------------------|---------------|---------------|---------------|-------|------|----------------|-----|-------|------|-----|-------------|----|
| IC1 | 11.26 | 11.29 | 11.26 | 0 | 11.26 | 11.27 | 11.29 | 22.6 | | | | | | | |
| IC2 | 11.4 | 11.35 | 10.9 | 0 | 10.8 | 11.3 | 11.51 | 22.6 | | | | | | | |
| IC51 | PLAY | STOP | FF | | REW | PAUSE | REC | | REC PROOF ON L | REC | PAUSE | PLAY | REW | FF or REW H | FF |
| IC52 | REW | FF,PLAY or PAUSE | FF,REW PLAY or PAUSE H | PLAY or PAUSE | PLAY or PAUSE | PLAY or PAUSE | | | | | | | | | |



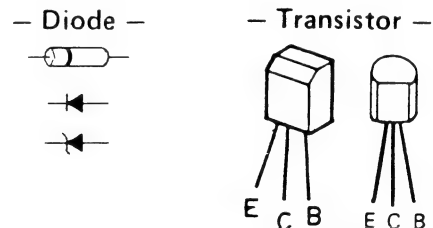
| |
|------|
| 24 |
| 16.5 |


| | | | | | | | | | | |
|-------|-------|------|-----|-------|------|-----|-----------|----|----|----|
| | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 27 | 11.29 | 22.6 | | | | | | | | |
| 3 | 11.51 | 22.6 | | | | | | | | |
| SE | REC | | REC | PAUSE | PLAY | REW | FF or REW | FF | | 5V |
| | L | 0 | H | H | H | H | H | H | | |
| or SE | | | | | | | | | | |
| L | 0 | | | | | | | | | |

| | | | | | | | | | | | | | | |
|------|---|---|---|---|---|---|---|---|---|-----------|---|---|---|----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| IC53 | POWER ON | | | | | | 0 | 999,REW | REW | 999,REW | | 999 | | 5V |
| |  |  |  |  |  |  | |  |  | H |  |  |  | |
| IC54 | PLAY | PAUSE | PLAY or PAUSE | PLAY or PAUSE | FF or REW | PLAY or PAUSE | 0 | PLAY or PAUSE | | | | | | 5V |
| | L | L | H | H | L | L | | L | H | H | H | L | L | |
| IC55 | PLAY or PAUSE | TAPE END | PLAY TAPE END | TAPE END | FF or REW | FF or REW TAPE END | 0 | FF | FF | FF or REW | REW | REW | FF or REW | 5V |
| | H | H | L | H | H | L | | L | H | H | L | H | H | |
| IC56 | PLAY | PLAY | PAUSE | PAUSE | REC | REC | 0 | FF or REW | | | | PAUSE | | 5V |
| | H | L | H | L | H | L | | H | L | L | H | H | L | |

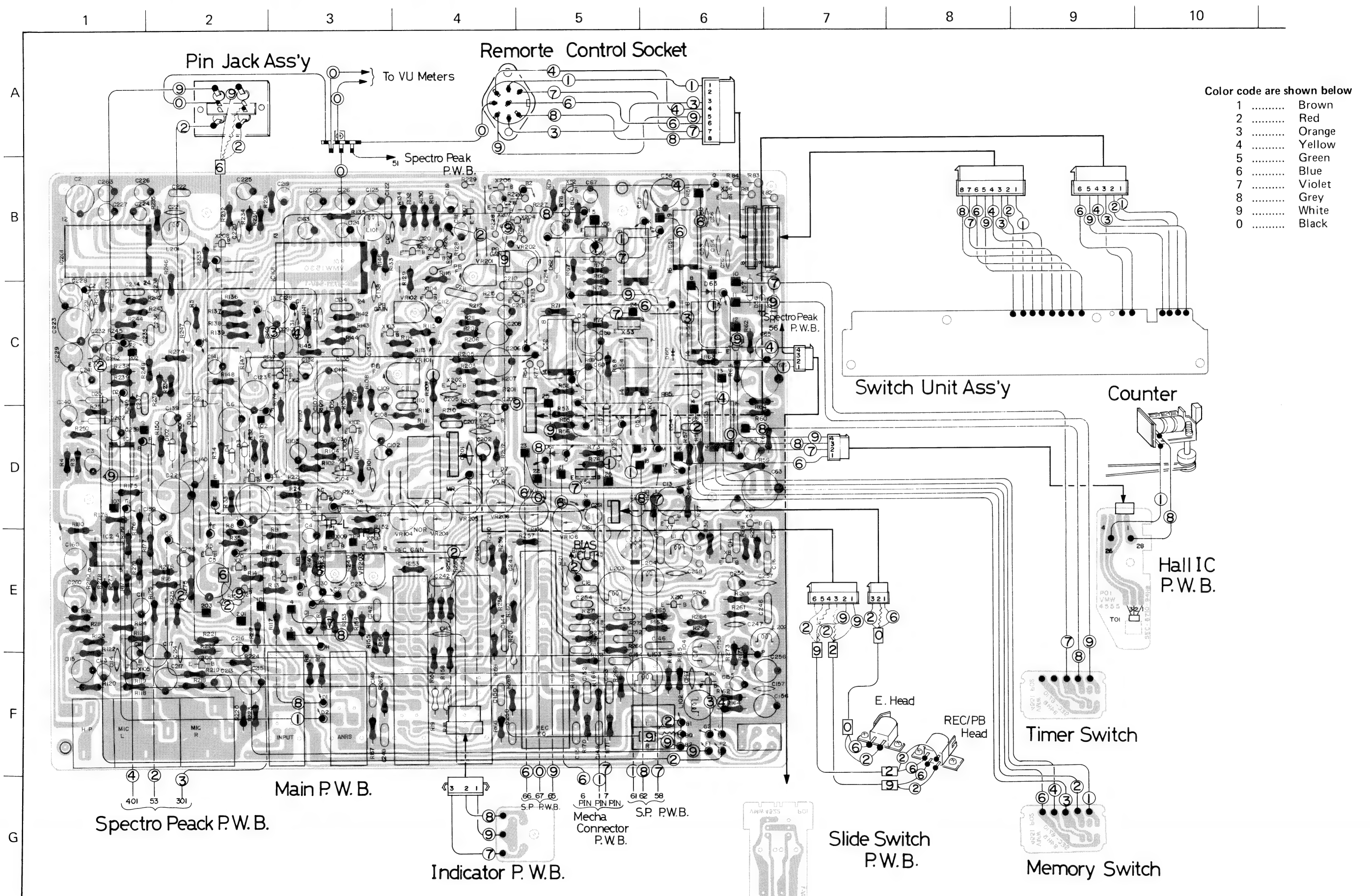


| | | | |
|----------|-------------------|---------------------------|---------------------------|
| | E | C | B |
| X101,201 | 0.01 | 2.1 | 0.6 |
| X102,202 | 1.5 | 11.8 | 2.1 |
| X103,203 | | | NORM Other 0.6 |
| X104,204 | 3.8 | Except REC 3.8 | Except REC 4.4 |
| X105,205 | 1.87 | 823 | 2.45 |
| X106,206 | | | REC Other 0.6 |
| X107,207 | 3.8 | REC | REC 4.4 |
| X108,208 | 0.27 | 8 | 0.87 |
| X109,209 | 0 | 0 | REC or REC MUTE 0.6 |
| X110,210 | 0.95 | 7.5 | 1.5 |
| X111,211 | 0 | | PLAY or REC Other 0.6 |
| X1 | 0 | REC Other 0.1 | REC Other 0.7 |
| X2 | 20.2 | REC Other 19.3 | REC Other 18.6 |
| X3 | REC Other 19 | 20 | REC Other 19.6 |
| X4 | 18.3 | PLAY or REC Other 18.3 | PLAY or REC Other 17.7 |
| X5 | 0 | REC Other 1.04 | REC Other 0.6 |
| X6 | 0 | REC Other 11 | REC MUTE Other 0.6 |
| X7 | 0 | REC Other 22 | REC Other 0.6 |
| X9 | REC Other 0.07 | REC Other 19.9 | REC Other 1.2 |
| X51 | 0 | TAPE END H | 0.6 |
| X52 | 0 | PLAY or REC H | PLAY or REC 0 |
| X53 | 0 | PLAY or PAUSE | PLAY or PAUSE |
| X54 | 0 | PAUSE Other L | PAUSE Other 0.6 |
| X55 | 0 | PAUSE Other 0 | PAUSE Other 0.6 |
| X56 | 0 | REC MUTE Other 20 | REC MUTE Other 0.6 |

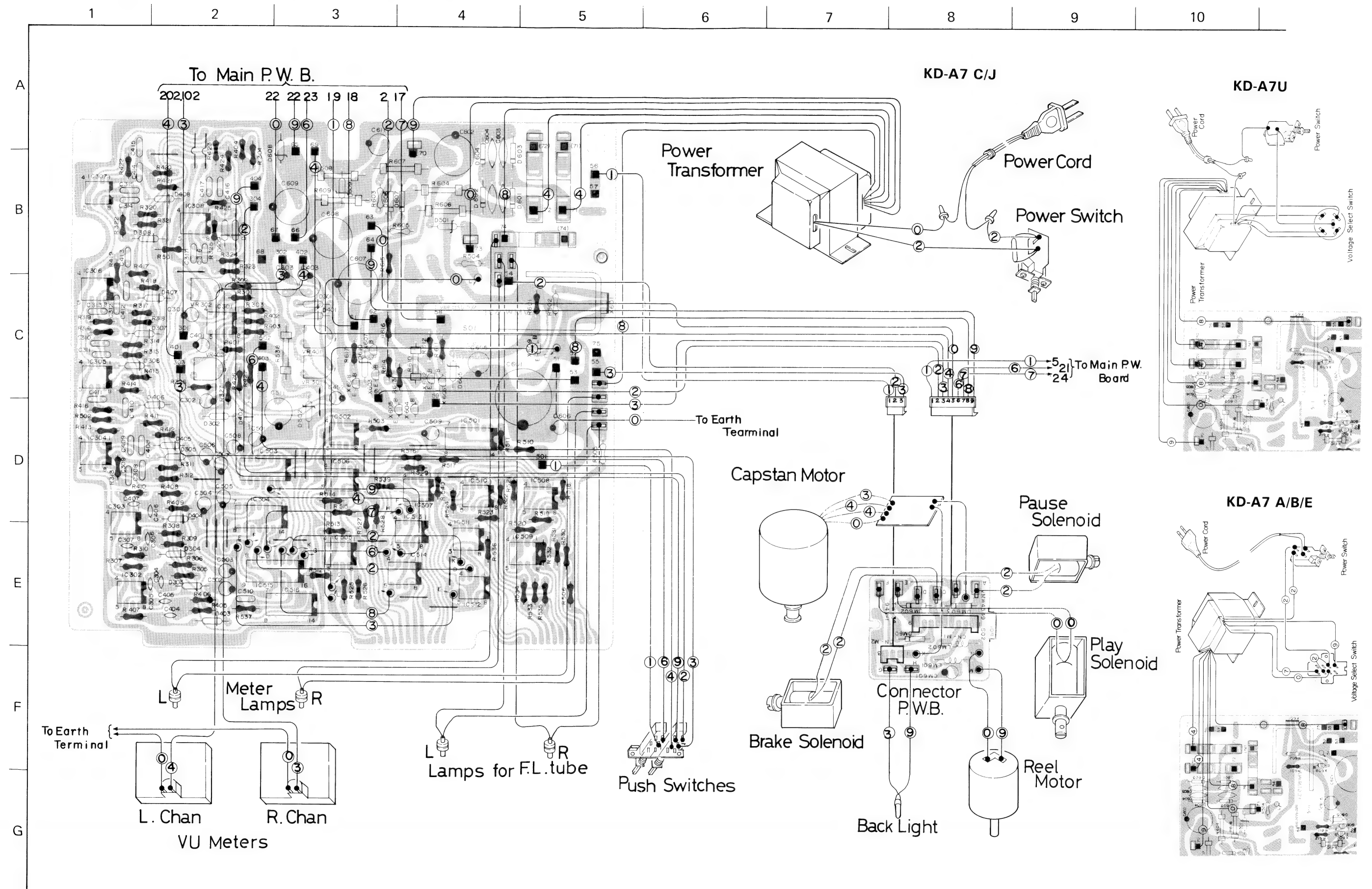


- NOTES: 1. All voltages are measured by Electronic Voltmeter. Unless otherwise specified, all resistors are 1/4W, $\pm 5\%$ carbon resistors. And all capacitors are 50V fixed ceramic capacitors or 50V mylar capacitors.
2. UF — Unflammable carbon resistor
MF — Metal film resistor
OMF — Oxidized metal film resistor
Ta — Tantalum solid electrolytic capacitor
LL — +20% low leak current electrolytic capacitor
PP — Polypropylene capacitor
PS — Polystyrene capacitor
MM — Metallized mylar capacitor
NP — Non-polarized electrolytic capacitor
3. Red lines show the signal at recording and + B circuit. Blue line shows the signal at playback.
4.  parts are safety assurance parts. When replacing those parts, make sure to use the specified one.

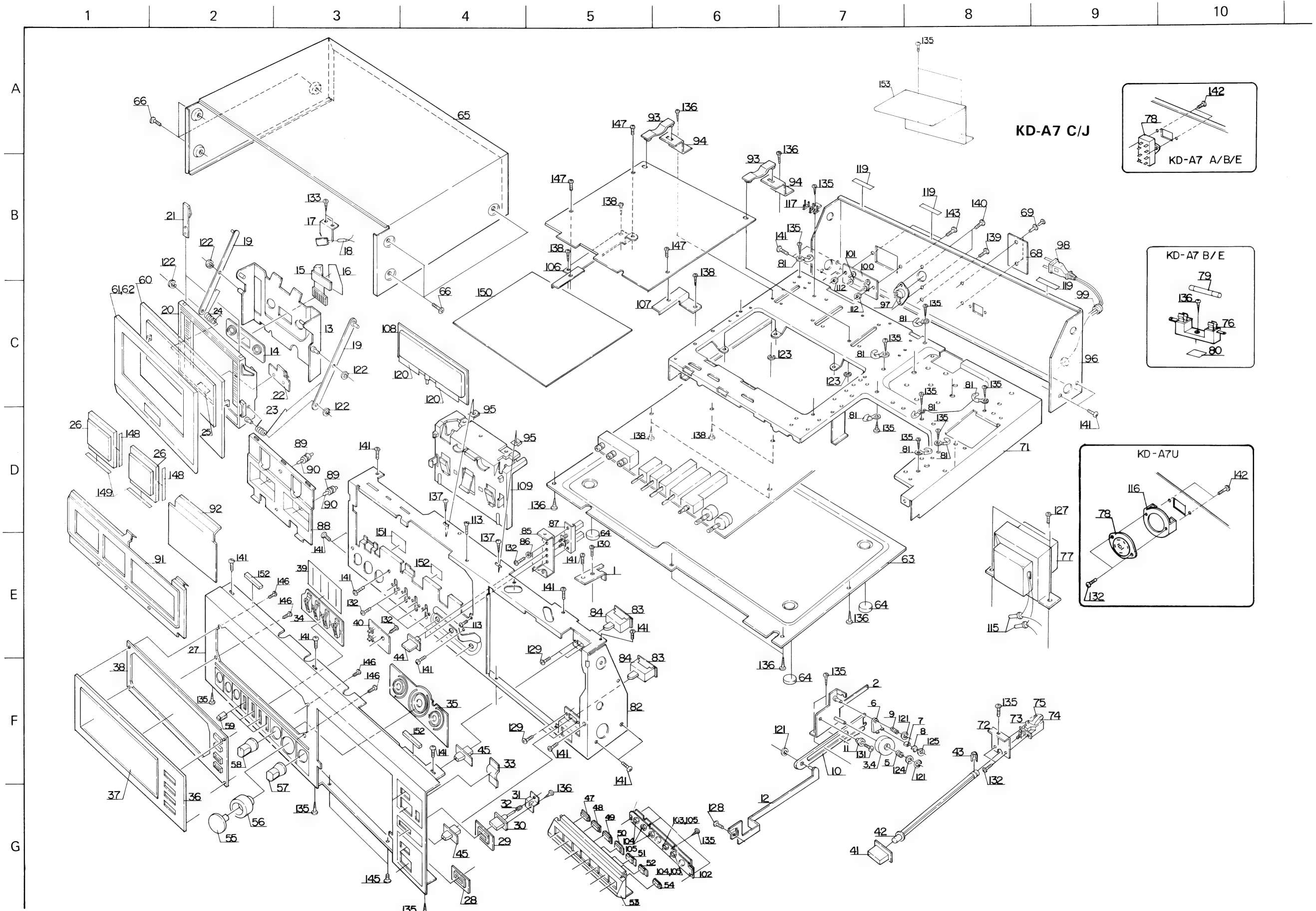
Wiring Connection (1) of KD-A7



Wiring Connection (2) of KD-A7



Enclosure Ass'y and Electrical Parts (Except P.W. Board Parts)



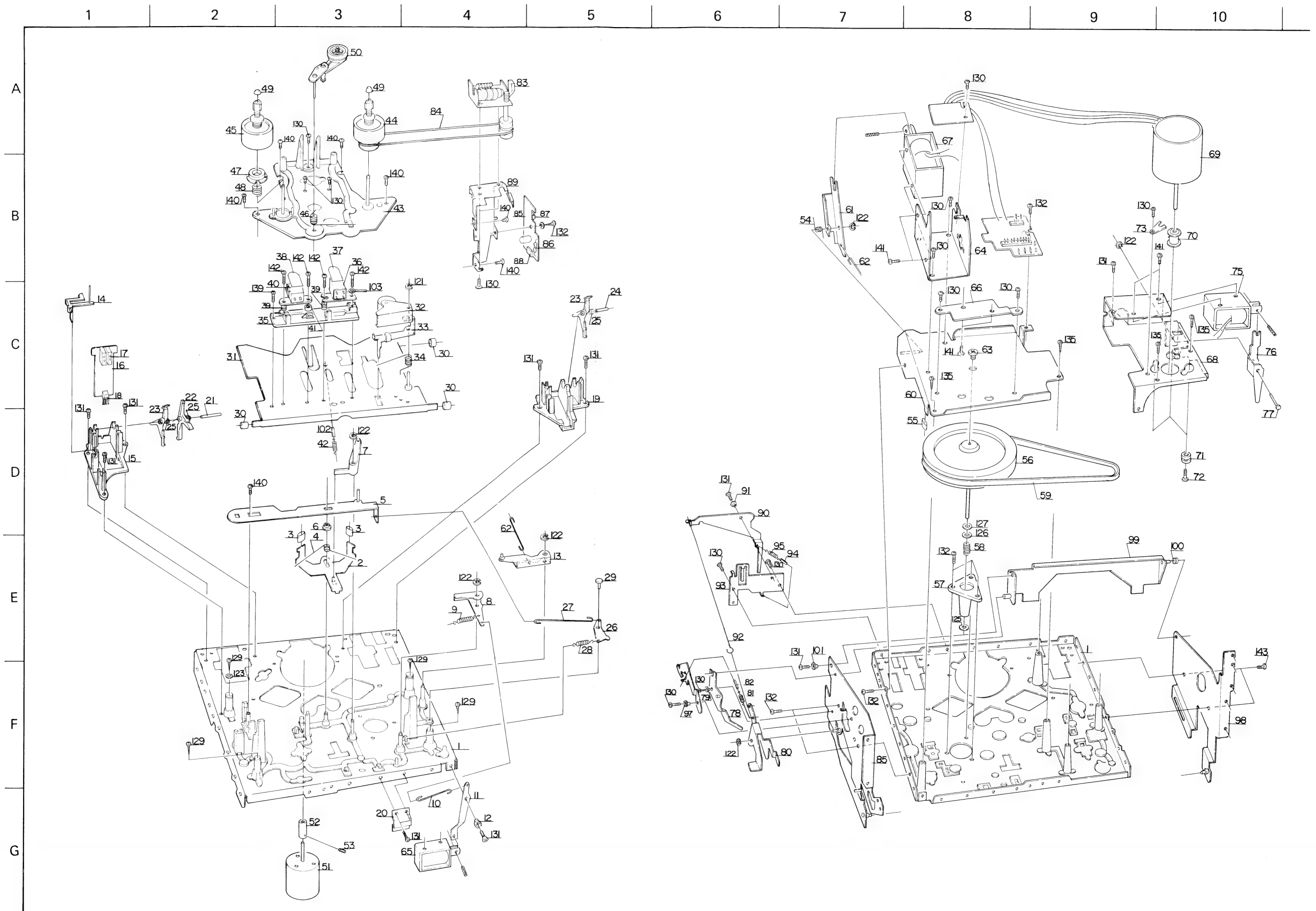
KD-A7 C/J

KD-A7 A/B/E

KD-A7 B/E

KD-A7U

Mechanical Component Parts



**Enclosure Assembly and Electrical parts List
(Except P.W. Board Parts)**

△ parts are safety assurance parts.

When replacing those parts, make sure to use the specified one.

| Ref. No. | Parts No. | Parts Name | Remarks | Q'ty |
|-----------------------|---------------|-----------------------|--------------------|-------|
| 1 | VKL4522-001 | Joint Bracket | | 1 |
| 2 | VKL4644-00A | Gear Frame Ass'y | | 1 |
| 3 | VKS4109-004 | Brake Drum | | 1 |
| 4 | VKS4108-003 | Spur Gear | | 1 |
| 5 | VKW3001-006 | Spring | | 1 |
| 6 | VKS4110-002 | Brake Arm | | 1 |
| 7 | VKZ4111-001 | Rubber Tire | | 1 |
| 8 | VKL4271-001 | Rubber Retainer | | 1 |
| 9 | VKW4106-001 | Torsion Spring | | 1 |
| 10 | VKS3102-001 | Rack Plate | | 1 |
| 11 | VKH4123-001 | Collar | | 1 |
| 12 | VKL4609-00A | Arm Ass'y | | 1 |
| 13 | VKL3188-00D | Holder Plate Ass'y | | 1 |
| 14 | VKL4213-002 | Panel Plate | | 1 |
| 15 | VJD4273-001 | Indicator | | 1 |
| 16 | VKZ4120-001 | Sheet | | 1 |
| 17 | VKL4507-001 | Lamp Bracket | | 1 |
| 18 | T47861-001 | Pilot Lamp | | 1 |
| 19 | VKL4380-00A | Cross Bar Ass'y | | 2 |
| 20 | VJT2035-001 | Cassette Lid | | 1 |
| 21 | VKY4156-001 | Cassette Spring | | 2 |
| 22 | VKY4159-002 | " | | 1 |
| 23 | VKW4153-002 | Holder Spring | | 1 |
| 24 | VKW4153-003 | " | | 1 |
| 25 | VJD4272-001 | Head Mark | | 1 |
| 26 | VGM0410-002 | Level Meter | | 2 |
| (27~29) (33~35,39) | ZCKDA7Y-CBF-1 | Front Plate Sub Ass'y | | 1 set |
| 27 | *VJC1090-002 | Front Plate | | 1 |
| 28 | VJD4262-003 | Power Escutcheon | | 1 |
| 29 | VJD4332-001 | Knob Escutcheon | | 1 |
| 30 | VXP4057-00B | Push Button Ass'y | | 1 |
| 31 | VKL4476-001 | Knob Bracket | | 1 |
| 32 | VKW3001-028 | Spring | | 1 |
| 33 | VJK4106-001 | Counter Lens | | 1 |
| 34 | VJD4325-001 | Lever Escutcheon | | 1 |
| 35 | VJD4333-001 | Volume Escutcheon | | 1 |
| (36,37,38) | ZCKDA7Y-CBF-2 | Meter Plate Ass'y | | 1 set |
| 36 | VJD3205-001 | Meter Plate | | 1 |
| 37 | VJD3142-001 | Finder | | 1 |
| 38 | VJD3203-002 | Escutcheon | | 1 |
| 39 | VYTA448-001 | Blind | | 1 |
| 40 | VMW4562-001 | P.W. Board | for Indicator | 1 |
| 41 | VXP3027-00A | Power Knob Ass'y | | 1 |
| 42 | VKS4113-002 | Remote Bar | | 1 |
| 43 | VYTS404-001 | Lock Plate | | 1 |
| 44 | VXP4055-001 | Knob | for P. Hold | 2 |
| 45 | VXS4019-001 | " | for Memory & Timer | 2 |
| 46 | T47818-001 | Spacer | | 3 |
| 47 | VXP3046-001 | Push Button | for REW | 1 |
| 48 | " -002 | " | for FF | 1 |
| 49 | " -003 | " | for Play | 1 |
| 50 | " -004 | " | for Stop | 1 |
| 51 | " -005 | " | for Rec | 1 |
| 52 | " -006 | " | for Pause | 1 |
| 53 | VJD3204-001 | Button Case | | 1 |
| 54 | VXP4056-001 | Push Button | for Rec Mute | 1 |
| 55 | VXL4083-00A | Knob Ass'y | for Rec (L) | 1 |
| 56 | VXL4084-00A | " | " (R) | 1 |
| 57 | VXL4085-00A | " | for Output | 1 |
| 58 | VXL4086-001 | " | for Rec EQ | 1 |
| 59 | VXQ4017-002 | Lever Knob Ass'y | | 4 |
| (60,61,62) | ZCKDA7Y-CCA | Cassette Door Ass'y | | 1 set |
| 60 | VJT3046-001 | Cassette Door | | 1 |

| Ref. No. | Parts No. | Parts Name | Remarks | Q'ty |
|----------|-----------------|-----------------------|----------------------------|------|
| 61 | VJT3032-002 | Door Plate | | 1 |
| 62 | VJZ4008-001 | Double Face | | 1 |
| 63 | VKL1158-001 | Bottom Cover | | 1 |
| 64 | VJF4003-001 | Foot | | 6 |
| 65 | VKL1124-002 | Top Cover | | 1 |
| 66 | VKZ3001-002 | Special Screw | | 6 |
| 67 | VND4016-001 | Metal Sticker | | 1 |
| 68 | VYN2053-002GA | Name Plate | KD-A7 B | 1 |
| | " -003GA | " | KD-A7 A | 1 |
| | " -004GA | " | KD-A7 C | 1 |
| | " -005GA | " | KD-A7 E | 1 |
| | " -006GA | " | KD-A7 J | 1 |
| | " -007GA | " | KD-A7 U | 1 |
| 69 | E48729-002 | Plastic Rivet | for name plate | 2 |
| 70 | *VYSH102-021 | Spacer | | 2 |
| 71 | *VKL1159-001 | Amp. Chassis | | 1 |
| 72 | VKL4441-001 | Switch Bracket | | 1 |
| 73 | QSP2111-011 | Push Switch | KD-A7 A/E (power switch) ⚠ | 1 |
| | QSP2111-011BS | " | KD-A7 B (") ⚠ | 1 |
| | QSP1110-222 | " | KD-A7 C/J (") ⚠ | 1 |
| | QSP1110-221 | " | KD-A7 U (") ⚠ | 1 |
| 74 | QFA72BM-223 | M.P. Capacitor | KD-A7 C 0.022μF ⚠ | 1 |
| | QFH72BM-223 | M.M. Capacitor | KD-A7 J " ⚠ | 1 |
| | QFH53AM-223 | " | KD-A7 U " ⚠ | 1 |
| 75 | T47047-001 | Condenser Boot | KD-A7 J/U ⚠ | 1 |
| 76 | QMG1321-002BS | Fuse Holder | KD-A7 B ⚠ | 1 |
| | QMG1321-002 | " | KD-A7 E ⚠ | 1 |
| 77 | *VTP66C7-021KBS | Power Transformer | KD-A7 B ⚠ | 1 |
| | VTP66C7-021K | " | KD-A7 A/E ⚠ | 1 |
| | | " | KD-A7 C/J ⚠ | 1 |
| | | " | KD-A7 U ⚠ | 1 |
| 78 | QSS2325-011BS | Voltage Select Switch | KD-A7 B ⚠ | 1 |
| | QSS2325-011 | " | KD-A7 A/E ⚠ | 1 |
| | QSR0084-001 | " | KD-A7 U ⚠ | 1 |
| 79 | QMF51A2-R20LBS | Fuse | KD-A7 B ⚠ | 1 |
| | QMF51A2-1R6 | " | KD-A7 A/E ⚠ | 1 |
| 80 | TAZ000509-08 | Fuse Seal | | 1 |
| 81 | VKZ4001-011 | Wire Holder | | 8 |
| 82 | *VKL1160-001 | Front Bracket | | 1 |
| 83 | VMW4551-001 | Switch P.W. Board | for Timer, Memory | 2 |
| 84 | QSS2301-101 | Slide Switch | " " | 2 |
| 85 | *VKL4627-001 | Switch Bracket | | 1 |
| 86 | VKH3001-007 | Collar | | 2 |
| 87 | *QSP0031-001 | Switch Ass'y | for Peak | 1 |
| 88 | *VKS3113-002 | Lamp Hood | | 1 |
| 89 | *VYH4335-002 | Lamp Holder | | 2 |
| 90 | T47861-003SN | Pilot Lamp | | 2 |
| 91 | *VJD2144-001 | Meter Escutcheon | | 1 |
| 92 | *VJK3143-002 | Peak Indicator | | 1 |
| 93 | VKS3000-001 | P.W.B. Holder | | 2 |
| 94 | *VKL4628-00A | Slider Ass'y | | 2 |
| 95 | TFB313563-02 | Plate Nut | | 2 |
| 96 | VKL1157-001 | Rear Bracket | KD-A7 A/B/E/U | 1 |
| | VKL1157-002 | " | KD-A7 C/J | 1 |
| 97 | *VKS3113-002 | DIN Jack Ass'y | for Remote | 1 |
| 98 | QMP2560-200 | Power Cord with Plug | KD-A7 A ⚠ | 1 |
| | QMP9017-008BS | Power Cord | KD-A7 B ⚠ | 1 |
| | QMP1200-200 | Power Cord with Plug | KD-A7 C/J ⚠ | 1 |
| | QMP3900-200 | " | KD-A7 E ⚠ | 1 |
| | QMP7600-200 | " | KD-A7 U ⚠ | 1 |
| 99 | QHS3876-162 | Strain Relief Bushing | KD-A7 A/C/E/J/U ⚠ | 1 |
| | QHS3876-162BS | " | KD-A7 B ⚠ | 1 |
| 100 | TAJ331301-03 | Pin Jack Ass'y | | 1 |
| 101 | TAA345532-01 | Circuit Board | for Pin Jack Ass'y | 1 |
| 102 | VST0003-001 | Switch Unit Ass'y | | 1 |
| 103 | TLR102S | LED | | 1 |

| Ref. No. | Parts No. | Parts Name | Remarks | Q'ty |
|----------|--------------|--------------------|---|------|
| 104 | TLG102S | LED | | 4 |
| 105 | *VKS4167-001 | Spacer | for LED | 5 |
| 106 | *VKL4624-001 | P.W.B. Bracket (L) | | 1 |
| 107 | *VKL4654-001 | " (R) | | 1 |
| 108 | *VGZ0002-001 | Fluorencent Tube | | 1 |
| 109 | *VKS2016-001 | FL Holder | | 1 |
| 112 | NTB3000S | Nut | for Pin Jack Board | 2 |
| 113 | *VKZ4128-001 | Special Screw | | 2 |
| 114 | TFB313563-02 | Plate Nut | for FL Holder | 2 |
| 115 | TAW000504-01 | Connector | KD-A7 J/U | 2 |
| 116 | VKL4275-001 | Bracket | KD-A7 U, for Voltage Select SW. | 1 |
| 117 | E46651-001 | Wrapping Terminal | | 1 |
| 118 | VYSR1R5-007 | Spacer | | 1 |
| 119 | VYSH103-023 | " | | 1 |
| 120 | VYSA1R8-042 | " | | 2 |
| 121 | REE2000 | "E" ring | for Brake Drum x 1 Rubber Retainer x 1 | 4 |
| 122 | REE2500 | " | Rack Plate x 1, Arm Ass'y x 1 for Holder Plate x 2 | 4 |
| 123 | REE3000 | " | Cross Bar Ass'y x 2 | 2 |
| 124 | WNS2600Z | Washer | for P.W.B.Holder | 1 |
| 125 | Q03093-524 | " | for Brake Drum | 1 |
| 126 | WSS3000N | " | for Rubber Retainer | 1 |
| 127 | DPSP4010ZS | Screw | for Power Transformer | 4 |
| 128 | LDSP2604R | " | for Cassette Lid | 1 |
| 129 | LPSP2604Z | " | for Timer SW. P.W.B. x 2 Memory SW. P.W.B. x 2 | 4 |
| 130 | LPSP2605Z | " | for Joint Bracket x 1 Peak Switch Ass'y x 1 | 4 |
| 131 | LPSP2608Z | " | Lamp Bracket x 2 | 1 |
| 132 | LPSP3006ZS | " | for Rack Plate | 9 |
| 133 | SBSB2606Z | Tapping Screw | for P.W.B x 1, Power x 2, Lever Switch x 4, Switch x 2 | 2 |
| 134 | SBSB2608Z | " | for Lamp Bracket | 4 |
| 135 | SBSB3006Z | " | for Button Case | 28 |
| 136 | SBSB3008Z | " | for Dumper x 2, Front Plate x 5, Button Cover x 4, Switch Bracket x 1, Front Bracket x 7, Wire Holder x 8, Wrapping Terminal x 1 | 4 |
| 137 | SBSB3008V | " | for Knob Bracket x 1, Fuse Holder x 1, P.W.B. Holder x 2 | 2 |
| 138 | SBSB3006V | " | for FL holder | 6 |
| 139 | SDSB3006R | Screw | for Amp. P.W.B x 4, S.P.I. P.W.B. x 2 | 4 |
| 140 | SDSP2606R | " | for Rear Bracket | 2 |
| 141 | SDSP3006Z | " | for DIN Jack Ass'y | 12 |
| 142 | SDSP3006RS | " | for Front Plate x 3 Mecha. Ass'y x 2 Mecha. Amp. x 7 | 2 |
| 143 | SDSP3008RS | " | for Voltage Select Switch | 2 |
| 144 | SSSP2605Z | " | for Pin Jack Ass'y | 2 |
| 145 | SSSP2608Z | " | for Mecha. | 2 |
| 146 | DPSP2608Z | " | for Button Case | 4 |
| 147 | DPSP3006Z | " | for Escutcheon | 4 |
| 148 | VYSA1R8-041 | Spacer | for P.W.B. Bracket | 2 |
| 149 | VYSA1R8-044 | " | for VU meter | 2 |
| 150 | VMA3103 | Shield Plate | " | 1 |
| 151 | | Cushion | for Front Panel | 2 |
| 152 | | " | " | 2 |
| 153 | VKL4665-001 | Plate | for Radiation | 1 |

Mechanical Component Parts List

| Ref. No. | Parts No. | Parts Name | Remarks | Q'ty |
|----------|--------------|----------------------------|------------------|------|
| 1 | VKL1118-00C | Chassis Base Ass'y | | 1 |
| 2 | VKL4361-002 | Brake Bar | | 1 |
| 3 | T44341-001 | Rubber Tire | | 2 |
| 4 | VKW4145-001 | Brake Bar Spring | for Brake Bar | 1 |
| 5 | VKL4362-001 | Lock Bar | | 1 |
| 6 | VKZ4005-001 | Stopper | for Brake Bar | 1 |
| 7 | VKS4135-00A | Lock Lever Ass'y | | 1 |
| 8 | VKL4364-001 | Pause Lever | | 1 |
| 9 | VKW3002-004 | Tension Spring | for Pause Lever | 1 |
| 10 | VKW4136-001 | Connecting Wire | | 1 |
| 11 | VKL4365-001 | Pause Solenoid Lever | | 1 |
| 12 | VKH3001-027 | Flange Collar | | 1 |
| 13 | VKL4366-00A | Play Arm Ass'y | | 1 |
| 14 | VKS4166-001 | Cassette SW. Lever | | 1 |
| 15 | VKS3109-001 | Switch Holder (L) | | 1 |
| 16 | VMW4522-001 | P.W. Board (L) | | 1 |
| 17 | QSP0029-001 | Slide Switch | | 2 |
| 18 | QMV5004-004 | Connector | | 1 |
| 19 | VKS3110-001 | Switch Holder (R) | | 1 |
| 20 | VKL4479-001 | Flywheel Cover | | 1 |
| 21 | VKH4196-001 | Shaft | | 1 |
| 22 | VKS4136-002 | Switch Lever | | 2 |
| 23 | VKS4156-001 | Pressure Lever | | 2 |
| 24 | VKH4196-002 | Shaft | | 1 |
| 25 | VKW4138-001 | Pressure Lever Spring | | 4 |
| 26 | VKL4399-001 | Eject Safety Lever | | 1 |
| 27 | VKW4142-001 | Connecting Wire | | 1 |
| 28 | VKW3002-004 | Spring | | 1 |
| 29 | TEP357469-02 | Stopper | | 1 |
| 30 | VKZ3003-001 | Rubber Tube | | 3 |
| 31 | VKL4370-00C | Slide Base Ass'y | | 1 |
| 32 | VKP4105-00B | Pinch Roller Bracket Ass'y | | 1 |
| 33 | VKL4371-001 | Push Arm | | 1 |
| 34 | VKW4139-001 | Pinch Roller Spring | | 1 |
| 35 | VKS2102-001 | Head Mount Base | | 1 |
| 36 | ZMM089401-0D | R/P Head Ass'y | | 1 |
| 37 | VND4012-001 | Head Plate | for X-cut | 1 |
| 38 | THC037417-02 | Head Plate | for SA | 1 |
| 39 | VKW3001-020 | Compression Spring | for R/P E. Head | 2 |
| 40 | ZMM090414-0A | E. Head Ass'y | | 1 |
| 41 | VKH4215-001 | Head Collar | | 1 |
| 42 | VKW3002-005 | Tension Spring | for Slide Base | 1 |
| 43 | VKL3155-00A | Reel Disk Bracket Ass'y | | 1 |
| 44 | VKR4113-00A | Take-up Reel Ass'y | | 1 |
| 45 | VKR4118-00A | Supply Reel Ass'y | | 1 |
| 46 | VKW4134-001 | Idler Spring | | 1 |
| 47 | VKS4130-001 | Back Tension Base | | 1 |
| 48 | VKW3001-026 | Compression Spring | for Back Tension | 1 |
| 49 | VKS4131-001 | Reel Stopper | | 2 |
| 50 | VKS4151-00B | Idler Ass'y Unit | | 1 |
| 51 | MDN-7V1 | Reel Motor | | 1 |
| 52 | VKR4121-001 | Motor Pulley | | 1 |
| 53 | YRS2603B | Screw | for Motor Pulley | 1 |
| 54 | VKW4149-001 | Play Solenoid Spring | | 1 |
| 55 | VKZ3003-001 | Rubber Tube | | 1 |
| 56 | VKF3107-00B | Flywheel Ass'y | | 1 |
| 57 | VKF3103-00B | Capstan Metal | | 1 |
| 58 | T30301-137 | Spring | | 1 |
| 59 | VKB3001-007 | Capstan Belt | | 1 |
| 60 | VKL4372-00B | Flywheel Holder Ass'y | | 1 |
| 61 | VKL4368-002 | Play Solenoid Lever | | 1 |
| 62 | VKW4137-001 | Connecting Wire | | 1 |
| 63 | TEP357456-01 | Thrust Screw | | 1 |
| 64 | VKL4629-001 | Play Solenoid Bracket | | 1 |
| 65 | VGP0201-004 | D.C. Solenoid Ass'y | for Pause | 1 |

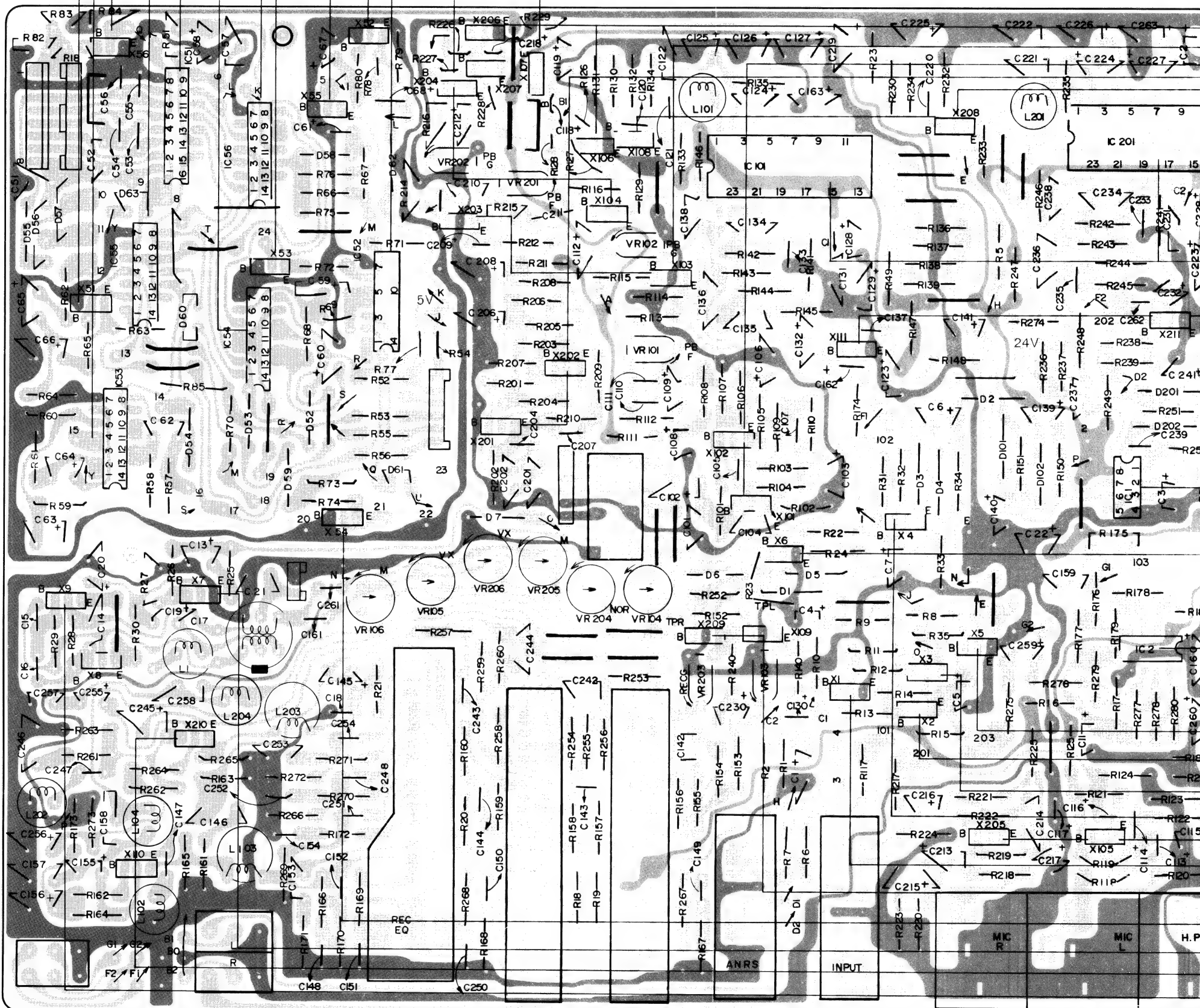
| Ref. No. | Parts No. | Parts Name | Remarks | Q'ty |
|----------|--------------|--------------------------|--|------|
| 66 | VKL4478-001 | Pause Solenoid Bracket | | 1 |
| 67 | VGP0301-002 | D.C. Solenoid Ass'y | for Play | 1 |
| 68 | VKL3161-002 | Motor Bracket | | 1 |
| 69 | m1606-00A | D.C. Motor | Capstan | 1 |
| 70 | VKS4139-001 | Motor Pulley | | 1 |
| 71 | TER357465-03 | Cushion Rubber | | 3 |
| 72 | VKZ4109-001 | Motor Screw | | 3 |
| 73 | TFB345469-01 | Rubber Stopper | | 1 |
| 74 | VKZ4001-011 | Wire Holder | | 1 |
| 75 | VGP0201-005 | D.C. Solenoid Ass'y | for Brake | 1 |
| 76 | VKL4363-002 | Lock Solenoid Lever | | 1 |
| 77 | VKH4194-001 | Shaft | | 1 |
| 78 | VKL4622-00A | Joint Arm Ass'y | | 1 |
| 79 | VKH4202-001 | Flange Collar | | 1 |
| 80 | VKL4464-001 | Lock Lever | | 1 |
| 81 | VKW3000-030 | Spring | | 1 |
| 82 | TJN265559-04 | Silencer | | 1 |
| 83 | VKC6110-001T | Counter Ass'y | | 1 |
| 84 | VKB3000-012 | Belt | for Counter | 1 |
| 85 | VKL4608-00B | Mecha. Bracket (R) Ass'y | | 1 |
| 86 | VMW4555-001 | P.W. Board | | 1 |
| 87 | DN6835 | Hall I.C. | | 1 |
| 88 | QMV5004-004 | Connector | | 1 |
| 89 | VKL4617-001 | Counter Bracket | | 1 |
| 90 | VKL4614-001 | Lock Arm | | 1 |
| 91 | VKH3001-028 | Flange Collar | | 1 |
| 92 | VKW4161-002 | Wire | | 1 |
| 93 | VKL4615-001 | Lock Arm Bracket | | 1 |
| 94 | VKW3002-024 | Tension Spring | | 1 |
| 95 | TJN265559-04 | Silencer | | 1 |
| 96 | VKL4568-001 | Hold Arm | | 1 |
| 97 | VKH3001-027 | Flange Collar | | 1 |
| 98 | VKL4607-00A | Mecha. Bracket (L) Ass'y | | 1 |
| 99 | VKL4403-00D | Shift Arm Ass'y | | 1 |
| 100 | VKW4156-001 | Shift Arm Spring | | 1 |
| 101 | T43909-002 | Metal | | 1 |
| 102 | TJN265559-02 | Silencer | | 1 |
| 103 | VMZ0008-00A | Wire Ass'y | | 1 |
| 121 | REE2000 | E ring | for Push Arm | 1 |
| 122 | REE2500 | " | for Lock Lever Ass'y x 1 Play Solenoid Lever x 1 Shaft x 1, Lock Lever x 1 | 1 |
| 123 | WNB2600N | Washer | for Slide Base Ass'y | 1 |
| 124 | Q03095-206 | " | | 1 |
| 125 | Q03093-522 | " | for Flywheel | 1 |
| 126 | Q03093-621 | " | " | 1 |
| 127 | Q03093-827 | " | " | 1 |
| 128 | DPSP2606Z | Screw | | 1 |
| 129 | GPSP2612Z | " | for Slide Base | 4 |
| 130 | LPSP2604Z | " | for Reel Motor x 3 Play Solenoid Bracket x 2 Pause Solenoid Bracket x 2 Rubber Stopper x 1 Lock Arm Bracket x 2 | 10 |
| 131 | LPSP2605Z | " | for Pause Solenoid Lever x 1 Flywheel Cover x 2 Motor Bracket x 1 Counter Bracket x 3 Flange Collar x 2, Metal x 1 | 10 |
| 132 | LPSP2606Z | " | for Capstan Metal x 3 Flywheel Holder x 1 | 4 |
| 133 | LPSP3004ZS | " | for Solenoid | 2 |
| 134 | LPSP3006CS | " | for Counter Bracket | 1 |
| 135 | SBSB2610Z | Tapping Screw | for Flywheel Holder x 2 Motor Bracket x 2 | 4 |

| Ref. No. | Parts No. | Parts Name | Remarks | Q'ty |
|----------|------------|---------------|--|------|
| 136 | SBSB3006C | Tapping Screw | for Mecha. x 4 | 4 |
| 137 | SDSP2606Z | Screw | for P.W. Board | 2 |
| 138 | SDSP3006CS | " | for Mecha. | 2 |
| 139 | SPSP2006N | " | for Head Mount Base | 1 |
| 140 | SPSP2605Z | " | for Reed Ass'y Unit x 4 Switch Holder x 5 | 9 |
| 141 | SPSP3003ZS | " | for Play Solenoid x 2 Brake Solenoid x 2 | 4 |
| 142 | SPSX2010N | " | for R/P, E Head | 4 |
| 143 | SSSP2605Z | " | for Flange Collar x 1, Mecha. x 2 | 3 |
| 144 | SSSP3006ZS | " | for Counter | 2 |

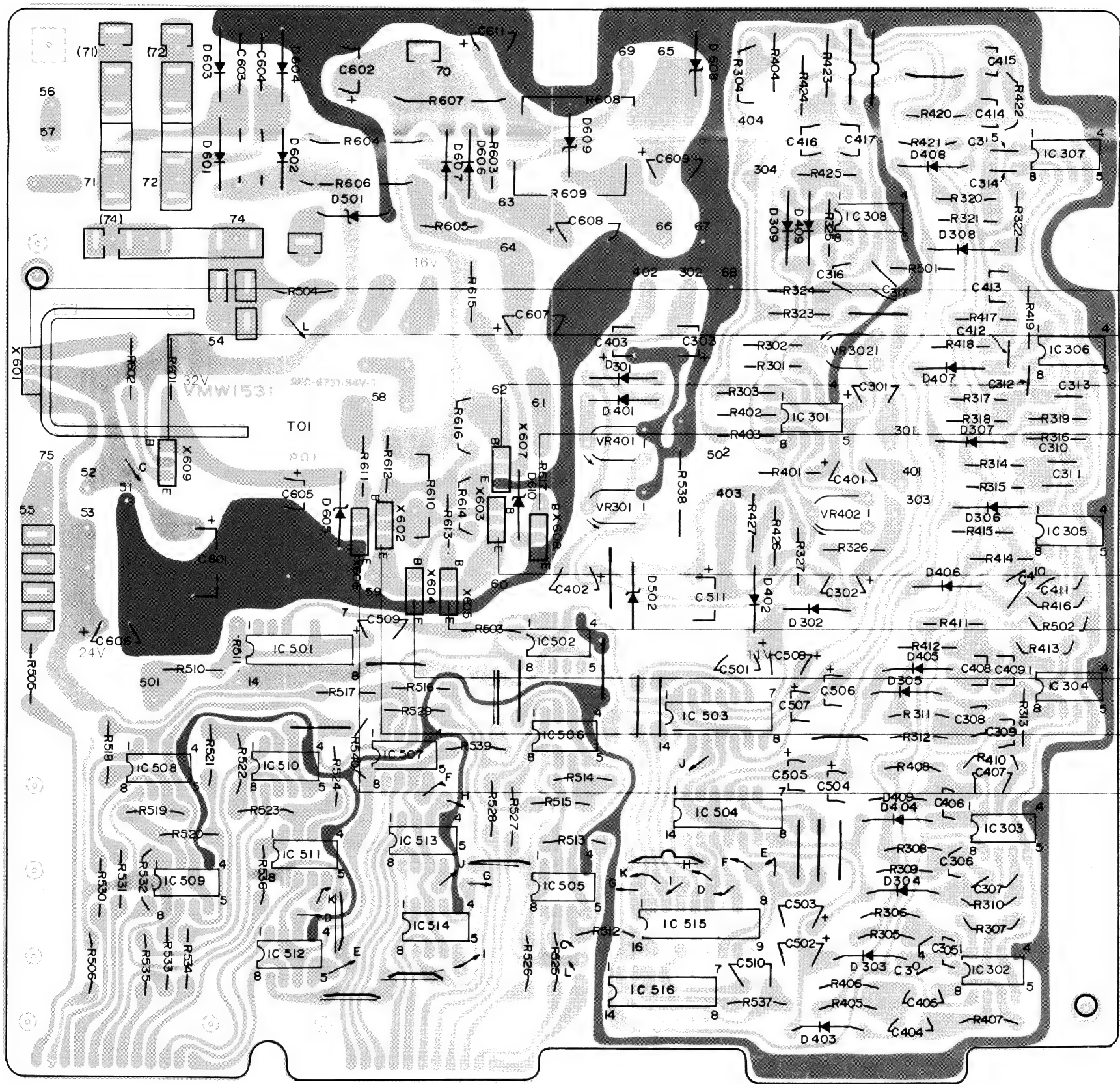
Printed Wiring Board Parts

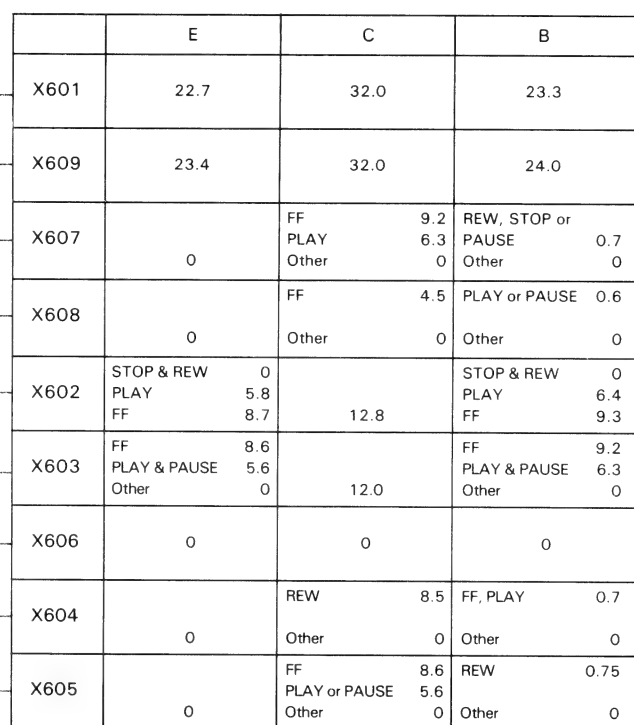
Main P.W. Board Parts

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|------|--------------------|-----------------------|---------------------------|--------------------|--------------------|-------------------------|----------|---------------|-------------------|----------------|------------|-----------|----------------|----------------|
| | POWER ON | | | | | | | 999,REW | REW | 999,REW | | 999 | | |
| IC53 | | | | | | | 0 | | H | | | | | 5V |
| IC55 | PLAY or PAUSE H | TAPE END H | PLAY TAPE END L | TAPE END H | FF or REW H | FF or REW TAPE END L | 0 | FF | FF | FF or REW H | REW L | REW H | FF or REW H | 5V |
| IC51 | PLAY L | STOP L | FF L | | REW L | PAUSE L | REC L | | REC PROOF ON L | REC H | PAUSE H | PLAY H | REW H | FF or REW H |
| IC54 | PLAY L | PAUSE L | PLAY or PAUSE H | PLAY or PAUSE H | FF or REW L | PLAY or PAUSE L | 0 | PLAY or PAUSE | | | | | | 5V |
| IC56 | PLAY H | PLAY L | PAUSE H | PAUSE L | REC H | REC L | 0 | FF or REW | | | PAUSE | | | 5V |
| IC52 | REW L | FF,PLAY or PAUSE L | FF,REW PLAY or PAUSE H | PLAY or PAUSE L | PLAY or PAUSE L | PLAY or PAUSE L | 0 | | | | | | | |



Spectro Peak P.W. Board Parts





Main Amp P.W.B. Parts list

⚠ parts are safety assurance parts.

When replacing those parts, make sure to use the specified one.



| Ref. No. | Parts No. | Parts Name | Remarks | Q'ty |
|---|---------------|----------------------|--------------------------|------|
| R101,201,104,204 | VMW1530-001 | P.W. Board | No supply as parts ass'y | 1 |
| R102,202 | QRD141J-823SL | C. Resistor | 82kΩ 1/4W | 4 |
| R25,72,169,269, 180,280 | " -820SY | " | 82Ω " | 2 |
| R103,203,161,261, 32,178,278 | " -151SY | " | 150Ω " | 8 |
| | " -273SY | " | 27kΩ " | 7 |
| R105,205,122,222 | " -101SY | " | 100Ω " | 4 |
| R106,206,60,62,85, 61,87 | " -102SY | " | 1kΩ " | 7 |
| R107,207 | " -681SY | " | 680Ω " | 2 |
| R108,208,115,215, 127,227,131,231, 148,248,174,274 2,26,31,33,79,86 | " -103SY | " | 10kΩ " | 18 |
| R109,209 | " -562SY | " | 5.6kΩ " | 2 |
| R110,210 | " -274SY | " | 270kΩ " | 2 |
| R111,211,141,241, 165,265 | " -152SY | " | 1.5kΩ " | 6 |
| R137,237 | " -822SY | " | 8.2kΩ " | 2 |
| R114,214,117,217, 124,224,129,229, 146,246,158,258, 163,263,176,276, 57,58,63,160,260, 182,282 | " -104SY | " | 100kΩ " | 23 |
| R116,216 | " -394SY | " | 390kΩ " | 2 |
| R118,218 | " -820SY | " | 82Ω " | 2 |
| R119,219,156,256 | " -334SY | " | 330kΩ " | 4 |
| R120,220,135,235, 149,249,28,29 | " -473SY | " | 47kΩ " | 8 |
| R121,221,151,251, 164,264,27,35,59, 83 | " -223SY | " | 22kΩ " | 10 |
| R123,223,77,88 | " -332SY | " | 3.3kΩ " | 4 |
| R125,225 | " -392SY | " | 3.9kΩ " | 2 |
| R126,226,133,233, 140,240,152,252, 181,281,9,10,22, 34,66,67,70,112, 212 | " -472SY | " | 4.7kΩ " | 19 |
| R128,228 | " -394SY | " | 390kΩ " | 2 |
| R130,230 | " -124SY | " | 120kΩ " | 2 |
| R132,232 | " -121SY | " | 120Ω " | 2 |
| R134,234,159,259, 1,8 | " -563SY | " | 56kΩ " | 6 |
| R136,236,12,64,69, 113,213,81,82, 179,279 | " -562SY | " | 5.6kΩ " | 11 |
| R138,238,142,242, 144,244 | " -272SY | " | 2.7kΩ " | 6 |
| R139,239,173,273, 11,13,84 | " -222SY | " | 2.2kΩ " | 7 |
| R143,242,78 | " -183SY | " | 18kΩ ⚠ | 3 |
| R145,245 | " -680SY | " | 68Ω " | 2 |
| R147,247 | QRD146J-181S | Unflammable Resistor | 180Ω " | 1 |
| R167,267 | QRD141J-181SY | C. Resistor | 180Ω " | 2 |
| R150,250 | " -474SY | " | 470kΩ " | 2 |
| R153,253 | " -823SY | " | 82kΩ " | 2 |
| R154,254,157,257, 36 | " -393SY | " | 39kΩ " | 5 |
| R155,255 | " -564SY | " | 560kΩ " | 2 |
| R162,262 | " -125SY | " | 1.2MΩ " | 2 |
| R166,266,168,268, 170,270,74,76 | " -221SY | " | 220Ω " | 8 |

| Ref. No. | Parts No. | Parts Name | Remarks | | Q'ty |
|--|---------------|-----------------------|----------|------|------|
| R171,271,6,7,52, 53,55,56,71 | QRD141J-271SY | C. Resistor | 270Ω | 1/4W | 9 |
| R172,272 | " -391SY | " | 390Ω | " | 2 |
| R175,275 | " -272SY | " | 2.7kΩ | " | 2 |
| R177,277,23 | " -224SY | " | 220kΩ | " | 3 |
| R3,4 | " -683SY | " | 68kΩ | " | 2 |
| R5,61,51 | " -471SY | " | 470Ω | " | 3 |
| R14 | " -333SY | " | 33kΩ | " | 1 |
| R16,17 | " -153SY | " | 15kΩ | " | 2 |
| R15 | QRD146J-121S | Unflammable Resistor | 120Ω | " | 1 |
| R18 | " -391S | " | 390Ω | " | 1 |
| R19 | " -471S | " | 470Ω | " | 1 |
| R20 | " -151S | " | 150Ω | " | 1 |
| R21 | " -470S | " | 47Ω | " | 1 |
| R24 | QRD141J-682SY | C. Resistor | 6.8kΩ | " | 1 |
| R30 | " -100SY | " | 10Ω | " | 1 |
| R54,73,75 | " -331SY | " | 330Ω | " | 3 |
| R65 | " -560SY | " | 56Ω | " | 1 |
| R68 | " -561SY | " | 560Ω | " | 1 |
| R80 | " -200SY | " | 20Ω | " | 1 |
| | V44611-005 | Bus Wire | | | 3 |
| | QWY123-022 | " | | | 28 |
| C101,201 | QCS11HJ-221 | F. Ceramic Capacitor | 220pF | 50V | 2 |
| C157,257 | " -391 | " | 390pF | " | 2 |
| C102,202,109,209 | QEB41EM-475N | Low Leak E. Capacitor | 4.7μF | 25V | 4 |
| C103,203,125,225, 126,226,127,227, 64,3,163,263 | QEW41CA-336N | E. Capacitor | 33μF | 16V | 12 |
| C104,204 | QCS11HJ-101 | F. Ceramic Capacitor | 100pF | 50V | 2 |
| C105,205 | " -680 | " | 68pF | " | 2 |
| C106,206,2 | QEW40JA-227N | E. Capacitor | 220μF | 6.3V | 3 |
| C107,207 | QFM41HJ-183 | Mylar Capacitor | 0.018μF | 50V | 2 |
| C108,208,117,217, 156,256,160,260 | QEW41EA-336N | E. Capacitor | 33μF | 25V | 8 |
| C110,210 | QFM41HJ-153 | Mylar Capacitor | 0.015μF | 50V | 2 |
| C148,248,151,251 | " -822 | " | 0.0082μF | " | 4 |
| C111,211 | " -102 | " | 0.001μF | " | 2 |
| C122,222,144,244 | " -102 | " | 0.001μF | " | 4 |
| C112,212,116,216, 118,218,119,219 | QEB41EM-105N | Low Leak E. Capacitor | 1μF | 25V | 8 |
| C113,213,141,241 | " -335N | " | 3.3μF | " | 4 |
| C114,214,318,238 | QCS11HJ-471 | F. Ceramic Capacitor | 470pF | 50V | 4 |
| C115,215,128,228, 129,229,6 | QEW41AA-107N | E. Capacitor | 100μF | 10V | 7 |
| C120,220,131,231, 133,233 | QCS11HJ-151 | F. Ceramic Capacitor | 150pF | 50V | 6 |
| C121,221 | " -201 | " | 200pF | " | 2 |
| C123,223,5,7,22 | QEW41EA-227N | E. Capacitor | 220pF | 25V | 5 |
| C124,224,68 | " -335N | " | 3.3μF | " | 3 |
| C130,230,1,61 | " -475N | " | 4.7μF | " | 4 |
| C132,232 | " -105N | " | 1μF | " | 2 |
| C134,234,154,254 | QFM41HJ-272 | Mylar Capacitor | 0.0027μF | 50V | 4 |
| C135,235 | " -273 | " | 0.027μF | " | 2 |
| C136,236 | " -682 | " | 0.0068μF | " | 2 |
| C137,237 | " -102 | " | 0.001μF | " | 2 |
| C139,239,145,245, 155,255,159,259, 162,262,20,69 | QEW41HA-105N | E. Capacitor | 1μF | " | 12 |
| C140,240 | QEW41AA-476N | " | 47μF | 10V | 2 |
| C142,242,150,250 | QFM41HJ-152 | Mylar Capacitor | 0.0015μF | 50V | 4 |
| C143,243 | " -122 | " | 0.0012μF | " | 2 |
| C146,246 | " -104 | " | 0.1μF | " | 2 |
| C147,247 | QCS11HJ-201 | F. Ceramic Capacitor | 200pF | " | 2 |
| C149,249 | QFM41HJ-332 | Mylar Capacitor | 0.0033μF | " | 2 |
| C152,252 | " -562 | " | 0.0056μF | " | 2 |
| C153,253 | " -392 | " | 0.0039μF | " | 2 |

| Ref. No. | Parts No. | Parts Name | Remarks | Q'ty |
|---|---------------|-------------------------|---------------------------|------|
| C158,258 | QCS11HJ-201 | F. Ceramic Capacitor | 200pF 50V | 2 |
| C70 | QCF11HP-104 | " | 0.1μF " | 1 |
| C161,261 | QFS32BK-221 | Polystyrene Capacitor | 220pF | 2 |
| C13 | QEW41CA-107N | E. Capacitor | 100μF 16V | 1 |
| C14,15,18 | QFM41HJ-472 | Mylar Capacitor | 0.0047μF 50V | 3 |
| C16 | QFP32AJ-103L | Polypropylene Capacitor | 0.01μF 10V | 1 |
| C17 | QFP32AJ-223L | " | 0.022μF " | 1 |
| C19,67,4 | QEW41EA-106N | E. Capacitor | 10μF 25V | 3 |
| C21 | QFS32BK-682 | Polystyrene Capacitor | 0.0068μF | 1 |
| C51 ~ 57 | QCF11HP-102 | F. Ceramic Capacitor | 0.001μF 50V | 7 |
| C58 | QEW40JA-108N | E. Capacitor | 1000μF 6.3V | 1 |
| C59 | QEN41EM-476M | N.P.E. Capacitor | 47μF 25V | 1 |
| C60,65 | QEW41CA-476N | E. Capacitor | 47μF 16V | 2 |
| C62 | QFM41HK-473 | Mylar Capacitor | 0.047μF 50V | 1 |
| C63,66 | QEW40JA-108N | E. Capacitor | 1000μF 6.3V | 2 |
| VR101,201,103,203 | QVP8A0B-024 | V. Resistor | 20kΩ | 4 |
| VR102,202 | " -054 | " | 50kΩ | 2 |
| VR104,204,105,205, 106,206 | QVP4A0B-224 | " | 22kΩ | 6 |
| L101,201,102,202, 104,204 | VQP0001-183 | Inductor | 18mH | 6 |
| L103,203 | TAC000320-07 | " | 5.6mH | 2 |
| L1 | VQP0001-102 | " | 1mH | 1 |
| X101,201,102,202 105,205,109,209 | 2SC1327(T.U) | Si. Transistor | | 8 |
| X103,203,104,204, 106,206,107,207, 1,3,5,6,51,52,56 | 2SC1684(R.S) | " | | 15 |
| X108,208 | 2SC1327(U) | " | | 2 |
| X109,209,110,210 | 2SD468(B.C) | " | | 4 |
| X2,4 | 2SA564(R.S) | " | | 2 |
| X7,8,9 | 2SC1685(R.S) | " | | 3 |
| X53,54,55 | 2SC1162(B.C) | " | | 3 |
| IC101,201 | TAT000351-01 | I.C | | 2 |
| IC1 | UPC4558C | " | | 1 |
| IC2 | UPC4557C | " | | 1 |
| IC51 | M54410P | " | | 1 |
| IC52,53,54 | HD7400 | " | | 3 |
| IC55 | HD7403 | " | | 1 |
| IC56 | HD7404 | " | | 1 |
| D101,201,102,202, 52 ~ 57,59,60,63, 65 | OA90 | Si. Diode | | 14 |
| D61,62,64 | MA150 | " | | 3 |
| | VQH1009-003 | Osc. Coil | | 1 |
| | VSK5D24-211 | Relay | | 1 |
| | *QSR6045-250 | Rotary Switch | for Rec EQ | 1 |
| | QSL8309-001 | Lever Switch | for EQ | 1 |
| | QSL8209-012 | " | for Metal | 1 |
| | QSL4209-021 | " | for I. & S. x 1, ANRS x 1 | 2 |
| | VMJ5002-003 | Mic & H.P Jack Ass'y | | 1 |
| | QMV5005-003 | Plug Ass'y | for E. Head Wires | 1 |
| | QMV5005-006 | " | for R/P Head Wires x 1 | 2 |
| | QMV5004-008 | " | Indicator x 1 | |
| | E43727-002 | Tab | for Cont. x 1, Remote x 1 | 2 |
| | VMZ0005-001 | Post Pin | | 33 |
| | *QVL7A7A-054V | V. Resistor | for Rec, 50kΩ | 1 |
| | *QVD8A7A-024V | " | for Output, 20kΩ | 1 |

Spectro-Peak Level Indicator P.W.B. Parts List

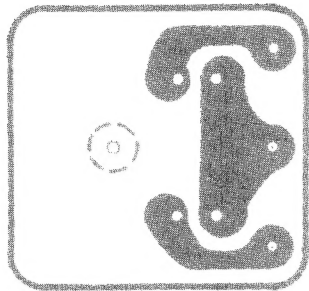
| Ref. No. | Parts No. | Parts Name | Remarks | Q'ty |
|--|---------------|-----------------------|--------------------------|------|
| R301,401 | VMW1531-001 | P.W. Board | No supply as parts ass'y | 1 |
| R302,402 | QRD141J-184SY | C. Resistor | 180kΩ 1/4W | 2 |
| R303,403 | " -103SY | " | 10kΩ " | 2 |
| R304,404 | " -102SY | " | 1kΩ " | 2 |
| R305,405 | " -911SY | " | 910Ω " | 2 |
| R308,408,311,411, 314,414,317,417, 320,420,323,423 | " -683SY | " | 68kΩ " | 2 |
| R306,406,309,409, 312,412,315,415, 318,418,321,421, 324,424 | " -753SY | " | 75kΩ " | 12 |
| R307,407 | " -562SY | " | 5.6kΩ " | 14 |
| R310,410,313,413, 316,416,319,419, 322,422,325,425 | " -334SY | " | 330kΩ " | 2 |
| R326,426 | " -334SY | " | 330kΩ " | 12 |
| R327,427 | " -101SY | " | 100Ω " | 2 |
| R501,520 | " -472SY | " | 4.7kΩ " | 2 |
| R502 | " -331SY | " | 330Ω " | 2 |
| R503,512 | " -123SY | " | 12kΩ " | 1 |
| R504,505 | " -682SY | " | 6.8kΩ " | 2 |
| R506 | QRD146J-100S | Unflammable Resistor | 10Ω " | 2 |
| R510 | QRD141J-332SY | C. Resistor | 3.3kΩ " | 1 |
| R511,507 | " -101SY | " | 100Ω " | 1 |
| R513 | " -105SY | " | 1MΩ " | 2 |
| R514 | " -182SY | " | 1.8kΩ " | 1 |
| R515 | " -202SY | " | 2kΩ " | 1 |
| R516 | " -911SY | " | 910Ω " | 1 |
| R517 | " -301SY | " | 300Ω " | 1 |
| R518 | " -511SY | " | 510Ω " | 1 |
| R519 | " -561SY | " | 560Ω " | 1 |
| R521,522 | " -471SY | " | 470Ω " | 1 |
| R523 | " -431SY | " | 430Ω " | 1 |
| R524 | " -151SY | " | 150Ω " | 1 |
| R525 ~ 536 | " -331SY | " | 330Ω " | 1 |
| R537 | " -152SY | " | 1.5kΩ " | 12 |
| R538 | " -105SY | " | 1MΩ " | 1 |
| R539,540 | QRG029J-181 | M.F. Resistor | 180Ω " | 1 |
| R601 | QRD141J-104SY | C. Resistor | 100kΩ " | 2 |
| R602 | " -822SY | " | 8.2kΩ " | 1 |
| R603 | QRD146J-3R3S | Unflammable Resistor | 3.3Ω " | 1 |
| R604 | " -3R3S | C. Resistor | 3.3Ω " | 1 |
| R605 | QRG039J-151 | O.M.F. Resistor | 150Ω 3W | 1 |
| R606 | QRD146J-220S | Unflammable Resistor | 22Ω 1/4W | 1 |
| R607 | QRG029J-221 | O.M.F. Resistor | 220Ω 2W | 1 |
| R608,609 | " -8R2 | " | 8.2Ω " | 1 |
| R610 | " -330 | " | 33Ω " | 2 |
| R611,617,512 | QRG019J-220 | " | 22Ω 1W | 1 |
| R612,615 | QRG141J-472SY | C. Resistor | 4.7kΩ 1/4W | 3 |
| R613,614 | " -122SY | " | 1.2kΩ " | 2 |
| R616 | " -272SY | " | 2.7kΩ " | 2 |
| C301,401 | " -333SY | " | 33kΩ " | 1 |
| C302,402,606 | QEW41HA-105N | E. Capacitor | 1μF 50V | 2 |
| C303,403 | QEW41EA-106N | " | 10μF 25V | 3 |
| C304,404,305,405 | QEW41CA-336N | " | 33μF 16V | 2 |
| C306,406,307,407 | QCS11HJ-331 | F. Ceramic Capacitor | 330pF 50V | 4 |
| C308,408,309,409 | " -681 | " | 680pF " | 4 |
| C310,410,311,411 | QFM41HJ-152 | Mylar Capacitor | 0.0015μF " | 4 |
| C312,412,313,413 | " -392 | " | 0.0039μF " | 4 |
| C314,414,315,415 | " -103 | " | 0.01μF " | 4 |
| C316,416,317,417 | " -273 | " | 0.027μF " | 4 |
| C501 ~ 508,512 | " -104 | " | 0.1μF " | 4 |
| C509 | QEB41EM-106N | Low Leak E. Capacitor | 10μF 25V | 9 |
| | QEB41EM-475N | " | 4.7μF 25V | 1 |

| Ref. No. | Parts No. | Parts Name | Remarks | Q'ty |
|-----------------|---------------|----------------------|---|------|
| C510 | QFM41HJ-102 | Mylar Capacitor | 0.001 μ F 50V | 1 |
| C511 | QEW41CA-108N | E. Capacitor | 1000 μ F 16V | 1 |
| C513 | " -227N | " | 220 μ F " | 1 |
| C611 | " -107N | " | 100 μ F " | 1 |
| C601 | QET41HR-228N | " | 2200 μ F 50V | 1 |
| C602 | QEW41EA-108N | " | 1000 μ F 25V | 1 |
| C603,604 | QCF12HP-103 | F. Ceramic Capacitor | 0.01 μ F 50V | 2 |
| C607,608 | QEW41EA-477N | E. Capacitor | 470 μ F 25V | 2 |
| C609 | QEW40JA-108N | " | 1000 μ F 6.3V | 1 |
| C605 | QEW41EA-107N | " | 100 μ F 25V | 1 |
| VR301,401 | QVP8A0B-023 | V. Resistor | 2k Ω | 2 |
| VR302,402 | " -015 | " | 100k Ω | 2 |
| X602,603 | 2SD468(B,C) | Si. Transistor | | 2 |
| X604,605 | 2SC1213(C,D) | " | | 2 |
| X606,607,608 | 2SC1684(R,S) | " | | 3 |
| X609 | 2SC1685(R,S) | " | | 1 |
| IC301 ~ 308 | UPC4558C | I.C | | 17 |
| 401 ~ 408,502 | | | | |
| IC501,503,504 | TC4016P | " | | 3 |
| IC505 ~ 514 | UPC4557C | " | | 10 |
| IC515 | TC4022P | " | | 1 |
| IC516 | TC4069P | " | | 1 |
| D301,401 | OA90 | Ge. Diode | | 2 |
| D302 ~ 309 | MA150 | " | | 17 |
| 402 ~ 409,503 | | | | |
| D501 | RD4.3E(C) | Zener Diode | | 1 |
| D502 | RD12F(B) | " | | 1 |
| D601 ~ 604 | 10E1-B | Si. Diode |  | 8 |
| 606,607,611,612 | | | | |
| D605 | RD24E(C) | Zener Diode | | 1 |
| D608,609 | RD5.1F(B) | " | | 2 |
| D610 | RD6.2E(B3) | " | | 1 |
| | E40130-001 | Tab | | 7 |
| | E43727-002 | " | | 35 |
| | QMF51A2-1R6BS | Fuse |  | 2 |
| | TAZ000331-02 | Fuse Holder | | 4 |
| | *VMA3103-001 | Shield Board | | 1 |

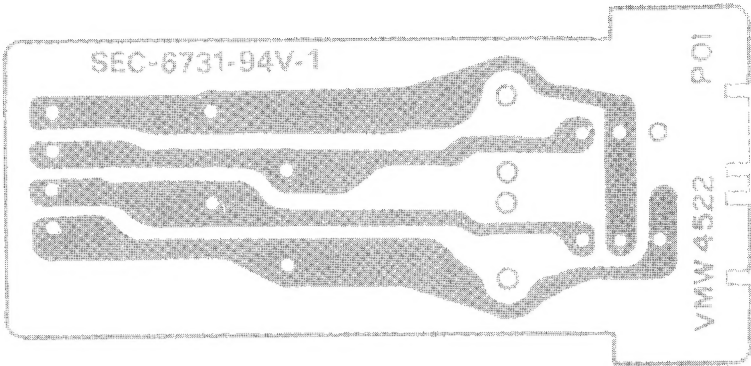
| | | | | |
|--------------|--------------|-----------------|--|---|
| (Transistor) | VMW4514-001 | P.W. Board | | 1 |
| | VKL4262-002 | Radiation Plate | | 1 |
| X601 | 2SC1162(B,C) | Si. Transistor | | 1 |
| | LPSP26Q6Z | Screw | | 1 |
| | SBSB3006Z | Screw | | 1 |

Other P.W. Board Parts

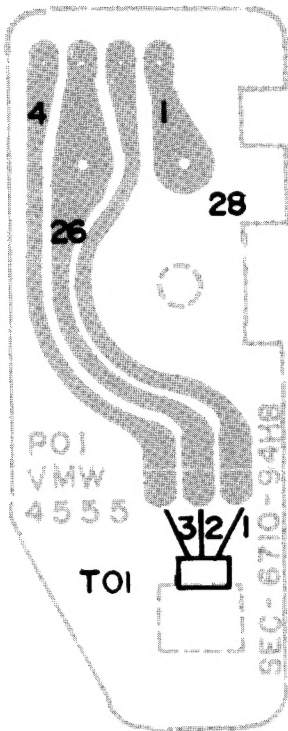
Indicator



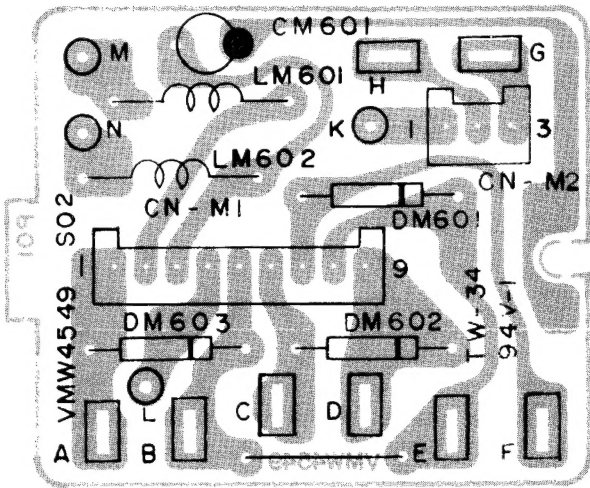
Slide Switch



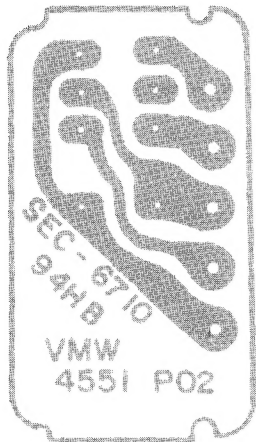
Hall IC



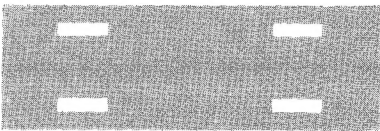
Connector



Timer and memory Switch



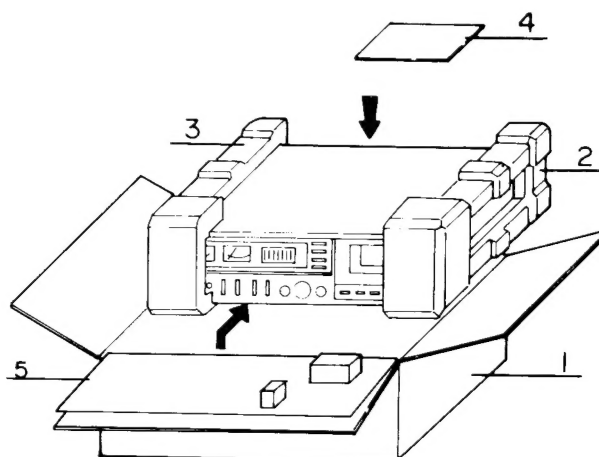
Pin Jacks



Other P.W. Board Parts List

| | Parts No. | Parts Name | Remarks | Q'ty |
|---------------------------|--------------|----------------|---------------------|------|
| (Indicator) | VMW456 2-001 | P.W. Board | for Indicator | 1 |
| | SLB-26GG1N | LED | for Super ANRS Tape | 2 |
| | QRD142K-271 | C. Resistor | 270Ω 1/4W | 2 |
| (Slide Switch) | VMW4522-001 | P.W. Board (L) | | 1 |
| | QSP0029-001 | Slide Switch | | 2 |
| | QMV5004-004 | Connector | | 1 |
| (Hall IC) | VMW4555-001 | P.W. Board | | 1 |
| | DN6835 | Hall I.C. | | 1 |
| | QMV5004-004 | Connector | | 1 |
| (Connector) | VMW4549-002 | P.W. Board | | 1 |
| | 10E1-B | Si. Diode | | 3 |
| | QMV5005-003 | Connector | | 1 |
| | QMV5005-009 | Connector | | 1 |
| | FG9010-001 | Tab | | 8 |
| | T41572-001 | Inductor | | 2 |
| | QEW41HA-105N | E. Capacitor | | 1 |
| (Timer and Memory Switch) | VMW4551-001 | Switch P.W.B. | Timer SW, Memory SW | 2 |
| | QSS2301-101 | Slide Switch | " " | 2 |
| | LPSP2604Z | Screw | for SW | 4 |
| (Pin Jack) | TAA345532-01 | Circuit Board | | 1 |

Packing



Packing Material List

| Ref. No. | Parts No. | Parts Name | Remarks | Q'ty |
|----------|---------------|--------------------|----------------------|------|
| 1,2,3 | VPA3110-00A | Packing Case Ass'y | KD-A7 A/B/E/J/U | 1 |
| 1,2,3 | " -00E | " | KD-A7 C | 1 |
| 1 | VPA3110-001 | Case | KD-A7 A/B/E/J/U | 1 |
| 1 | " -005 | " | KD-A7 C | 1 |
| 2 | VPH2124-001 | Cushion (L) | | 1 |
| 3 | VPH2125-001 | Cushion (R) | | 1 |
| | TKS000501-001 | Sheet | for Deck | 1 |
| | QPGA060-06005 | Envelope | for Deck | 1 |
| | AP4056A-036 | " | for Provided Cord | 1 |
| 4 | QPGB024-03404 | " | for Instruction Book | 1 |
| 5 | *VPK3132-001 | Front Pad | | 1 |

Accessories

| Parts No. | Parts Name | Remarks | Q'ty |
|---------------|-----------------------|-----------------|------|
| VMP0002-00A | PIN cord | | 2 |
| VYA4001-00A | Head Cleaning Stick | | 1 |
| VNN0047-301 | Instruction Book | | 1 |
| BT20029 | Warranty Card | KD-A7 A | 1 |
| VND4013-001 | Warranty Label | KD-A7 A/B/E | 1 |
| T46328-003 | Caution Label | KD-A7 A/B | 1 |
| TLJ000476-02 | ANRS Seal | | 1 |
| TLJ000477-02 | Super ANRS Seal | | 1 |
| VPZ4001-001 | Serial Ticket | KD-A7 A/B/E/J/U | 1 |
| BT20013B | Guarantee Certificate | KD-A7 B | 1 |
| TJL000443-01 | Seal | KD-A7 B | 1 |
| | BEAB Label | KD-A7 B | 1 |
| QZL1002-003BS | Warning Label | KD-A7 B | 1 |
| VNC5004-001 | Mark Sticker | KD-A7 B/E | 1 |
| BT2005C | Warranty Card | KD-A7 C | 1 |
| T44362-001 | CSA Marker | KD-A7 C | 1 |
| TLT000505-01 | UL/CSA Caution Label | KD-A7 C/J | 1 |
| T43758-003 | Serial Ticket | KD-A7 C | 1 |
| T46328-004 | Caution Label | KD-A7 E | 1 |
| BT20032 | Warranty Card | KD-A7 J/U | 1 |
| BT20042 | Special Reply Card | KD-A7 J/U | 1 |
| E7795-1 | EP Mark | KD-A7 U | 1 |
| V04062-001 | Siemens Plug | KD-A7 U | 1 |
| T46328-001 | Caution Label | KD-A7 U | 1 |



VICTOR COMPANY OF JAPAN, LIMITED
RADIO & RECORDING MACHINE DIVISION 804 Futoo-cho, Kohoku-ku, Yokohama, Japan

CORRECTION

(Bias current adjustment on page 11 and 13)
(Wrong)

| | L | R | | L | R |
|---------------------|-------|-------|---|-------|-------|
| SA/CrO ₂ | VR105 | VR205 | → | VR106 | VR206 |
| Metal | VR106 | VR206 | → | VR105 | VR205 |

(Correct)

SUPPLEMENTARY

(Main amp P. W. Board parts on page 35)

| | | | | | |
|------------------|---------------|-----------------|---------|------|---|
| Additional Parts | | | | | |
| R89 | QRD143J-471S | C. Resistor | 470Ω | 1/4W | 1 |
| C71 | QEW41CA-106N | E. Capacitor | 10μF | 16V | 1 |
| D66 | OA91 | Ge. Diode | | | 1 |
| Changeable parts | | | | | |
| C62 | QFM41HK-473 | Mylar Capacitor | 0.047μF | 50V | 1 |
| | ↓ | | | | |
| | QEW41CA-106N | E. Capacitor | 10μF | 16V | 1 |
| R57. 58. | QRD141J-104SY | C. Resistor | 100kΩ | 1/4W | 2 |
| | ↓ | | | | |
| | QRD141J-103SY | " | 10kΩ | 1/4W | 2 |

(Spectro peak level indicator P. W. board parts on page 36)

| | | | | | |
|------|-------------|--------------|------|----|---|
| R604 | QRG039J-151 | OMF Resistor | 150Ω | 3W | 1 |
| | ↓ | | | | |
| | QRG036J-151 | " | " | " | 1 |

(Enclosure assembly and electrical parts on page 27)

| | | | | | |
|------------------|---------------|------------|--|--|---|
| Additional parts | | | | | |
| | * VKL4685-001 | Bracket | | | 1 |
| | SBSB3006Z | Screw | | | 2 |
| | VKZ4001 | Wire clamp | | | 1 |

(Accessories on page 40)

| | | | | | |
|------------------|-------------|---------------|--|--|---|
| Additional parts | | | | | |
| | VND4001-005 | Caution label | | | 1 |
| | VND4006-002 | Caution label | | | 1 |